

## Fibroids, Hysterectomy, and the Opothrapy-Surgical Technology Nexus

While general French medical theses describing women's critical age and its hygiene became less common in the final three decades of the nineteenth century, this was not the end of the French invention of menopause. Two new disciplines took it on as important pedagogic and clinical focus after this time: psychiatry, as we considered in Chapter 7, and gynaecological surgery, which expanded massively from the 1870s until the 1920s. In the second half of the nineteenth century, the French dominion over the topic of menopause had begun gradually to diminish, even as those writing about it were floridly generating new topics in relation to novel concepts such as erotomania and degeneration. German, English, Italian, and American writers had begun occasionally to discuss women's final cessation of menses, though never with the level of fascination that French medicine continued to show towards it. But the new rise of gynaecological surgery in the second half of the nineteenth century produced an important surge of international research and intercultural communication between medical scholars with an interest in women's ageing reproductive organs. Women in their forties were now seen by some surgeons in many countries, especially in France and England, as important targets for the experimental surgical removal of the uterus and ovaries. In French medicine, these organs had long been seen as monstrous and troublesome throughout women's lifespan, from puberty to pregnancy, in menstruation, lactation, and menopause, causing nervous and mental illnesses as well as cancers and other gynaecological pathologies. In young women they were deemed necessary for conception, particularly in the intensifying pronatalist culture of the late nineteenth century and increasing anxieties about negative population growth, with the resulting major focus in women's medicine on questions of fertility.<sup>1</sup> In older women, on the other hand, the uterus and ovaries were often described by doctors as shrivelled and useless at best, often perverting, cancerous, or degenerate at worst.

<sup>1</sup> Henri Leridon, 'Théories de la fécondité: Des démographes sous influence?' *Population*, 70/2 (2015): 331–373; Andrea A. Rusnock, *Vital Accounts: Quantifying Health and Population in Eighteenth-Century England and France* (Cambridge: Cambridge University Press, 2002), 179–209; Patrice Bordelais, *Le Nouvel Âge de la vieillesse* (Paris: Éditions Odile Jacob, 1993), 117–131; Karen Offen, 'Depopulation, Nationalism and Feminism in Fin-de-Siècle France', *American Historical Review*, 89/3 (1984): 648–676.

In French gynaecology from the 1870s, benign uterine fibroid tumours (leiomyomas) became the most common condition for which women were prescribed the new but still very dangerous surgeries of hysterectomy and oophorectomy, often in their thirties and forties, well before the natural cessation of menses with ageing. But by the turn of the twentieth century, several influential French surgeons had begun to insist that these common tumours were a specific pathology of menopause itself, even as a vast statistical dataset suggested exactly the opposite—that they stopped growing or even disappeared with the end of menstruation and fertility. Hysterectomy with oophorectomy was the solution proposed for fibroids and several other benign (non-cancerous) growths and disorders. But this surgery performed on a woman before the age of menopause, if she survived it, artificially created a state similar to natural menopause, only far more abruptly and with long-term consequences for ageing morbidity. This was no longer just about the medical invention of a novel concept of menopause or a critical age, as had been the case thus far throughout the nineteenth century. There was now a surgically created population of women whose medical treatments actually put them into menopause, in the nineteenth-century sense of this concept: the definitive cessation of menstruation, the end of fertility, and the loss of systemic activity of the uterus and ovaries, but also uncomfortable physical and nervous symptoms, fat gain, memory problems, and loss of vitality. French medicine, by the 1890s, was also beginning to see menopause in relation to the loss of the ovaries' internal secretions, which were understood to be both health-preserving and prosexual,<sup>2</sup> thus opening the possibility of their novel pharmacological replacement in women who had their organs surgically excised. It was a whole new level of disease-mongering: no longer simply contenting itself with the reconstruction of concepts about women's ageing that made them targets for medical surveillance, hygiene, and psychiatric incarceration, instead it introduced a far more aggressive, novel iatrogenesis of premature ageing morbidity in women who would not otherwise have suffered it. Clearly, none of these early surgical innovators had access to any of the vast data available to patients and clinicians in the twenty-first century indicating long-term increased risks for ageing women's morbidity following premenopausal hysterectomy and oophorectomy for benign conditions.<sup>3</sup> But their

<sup>2</sup> Chandak Sengoopta, *The Most Secret Quintessence of Life: Sex, Glands and Hormones, 1850–1950* (Chicago: University of Chicago Press, 2006), 33–49.

<sup>3</sup> To cite just a portion of recent research referring to increased risks of thyroid and brain cancer, cardiovascular disease, mental health conditions, dyslipidaemia, hypertension, urinary incontinence, dementia, osteoporosis, and general ageing multi-morbidity: Sabbir T. Rahman et al., 'Risk of Thyroid Cancer Following Hysterectomy', *Cancer Epidemiology*, 72 (2021): 1–8. Article 101931; Martha Hickey & Gita D. Mishra, 'Timing and Type of Menopause and Risk of Cardiovascular Disease', *Menopause: The Journal of the North American Menopause Society*, 28/5 (2021): 477–479; Shannon K. Laughlin-Tommaso et al., 'Long-Term Risk of De Novo Mental Health Conditions after Hysterectomy with Ovarian Conservation: A Cohort Study', *Menopause: The Journal of the North American Menopause Society*, 27/1 (2020): 33–42; Marios K. Georgakis et al., 'Surgical Menopause in Association with Cognitive Function and Risk of Dementia: A Systematic Review and Meta-analysis', *Psychoneuroendocrinology*

own concepts about the decline of the uterus and ovaries heralding a sudden 'death of sex' and the advent of old-age illness should have been sufficient to cause doctors to pause over the ethics of inducing early menopause artificially in women who had no life-threatening diseases. Indeed, many doctors did pause over it, particularly in France and Germany, and hysterectomy and oophorectomy remained controversial treatments until the early twentieth century, not least because of how risky they remained. In 1883, in the ninety-three published case observations of hysterectomy in the international medical literature, mortality was as high as 67 per cent, and it still remained around 14 per cent in 1941 despite massive improvements in surgical technique, aseptic procedure, antibiotics, anaesthetics, and patient aftercare.<sup>4</sup>

But another development in French and German medicine in the 1890s, alongside the improved survival rates for hysterectomy between 1870 and 1900, helped to soften some of the opposition to the increasingly widespread radical gynaecological surgeries for benign conditions. This was the commercialisation of ovarian hormonal ootherapy products, 'ovarian juice' (*le suc ovarien*) as it was called in the 1890s, which over the following fifty years became the source of multi-billion-dollar profits for global pharmaceutical conglomerates.<sup>5</sup> It was only in 1924 that the French biochemist Robert Courrier (1895–1986) isolated the specific ovarian hormone which he named 'folliculine', later known as oestrogen, which became the backbone of the global pharmaceutical enterprise of menopause hormone

106 (2019): 9–19; Pei-Chen Li et al., 'Risk of Hyperlipidemia in Women with Hysterectomy: A Retrospective Cohort Study in Taiwan', *Nature Scientific Reports*, 8 (2018): 1–9. Article 12956; D.-C. Ding et al., 'Risk of Hypertension after Hysterectomy: A Population-Based Study', *BJOG: International Journal of Obstetrics & Gynaecology* (2018): 1–8; Shannon K. Laughlin-Tommaso et al., 'Cardiovascular and Metabolic Morbidity after Hysterectomy with Ovarian Conservation: A Cohort Study', *Menopause: Journal of the North American Menopause Society*, 25/5 (2017): 483–492; Walter A. Rocca et al., 'Accelerated Accumulation of Multimorbidity after Bilateral Oophorectomy: A Population-Based Cohort Study', *Mayo Clinic Proceedings*, 91/11 (2016): 1577–1589; Daniel Altman, Li Yin, and Henrik Falconer, 'Long-Term Cancer Risk after Hysterectomy on Benign Indications: Population-Based Cohort Study', *International Journal of Cancer*, 138 (2016): 2631–2638; Riley Bove et al., 'Age at Surgical Menopause Influences Cognitive Decline and Alzheimer Pathology in Older Women', *Neurology*, 82 (2014): 222–229; Catharina Forsgren and Daniel Altman, 'Long-Term Effects of Hysterectomy: A Focus on the Aging Patient', *Aging Health*, 9/2 (2013): 179–187; Erik Ingelsson et al., 'Hysterectomy and Risk of Cardiovascular Disease: A Population-Based Cohort Study', *European Heart Journal*, 32 (2011): 745–750; T. K. T. Phung et al., 'Hysterectomy, Oophorectomy and Risk of Dementia: A Nationwide Historical Cohort Study', *Dementia and Geriatric Cognitive Disorders*, 30/1 (2010): 43–50; Jeannette S. Brown et al., 'Hysterectomy and Urinary Incontinence: A Systematic Review', *The Lancet*, 356/9229 (2000): 535–539.

<sup>4</sup> Ornella Moscucci, *The Science of Woman: Gynaecology and Gender in England, 1800–1929* (Cambridge: Cambridge University Press, 1993), 67, 82.

<sup>5</sup> André Marchand, *Opothérapie: Émergence et développement d'une technique thérapeutique (France, 1889–1940)*. Thèse (Paris: Conservatoire national des arts et métiers, 2015); Elizabeth Siegel Watkins, *The Estrogen Elixir: A History of Hormone Replacement Therapy in America* (Baltimore: Johns Hopkins University Press, 2009); Celia Roberts, *Messengers of Sex: Hormones, Biomedicine and Feminism* (Cambridge: Cambridge University Press, 2007); Ilana Löwy and Jean-Paul Gaudillière, 'Médicalisation de la ménopause, mouvements pour la santé des femmes et controverses sur les thérapies hormonales', *Nouvelles Questions féministes*, 25/2 (2006): 48–65.

replacement therapy in the twentieth century.<sup>6</sup> But the precedents of this practice had unfolded in France of the 1890s, in response, in turn, to the innovation of surgical hysterectomy and oophorectomy from the 1870s onwards. It was in the context of developing ovarian ophotherapy in the 1890s that the iatrogenic side effects of surgeries to remove women's reproductive organs became an object of scientific study, thanks to the pioneering work of several Paris gynaecologists working under Samuel Pozzi (1846–1918), particularly Félix Jayle (1866–1945).<sup>7</sup> Almost immediately, these therapies were extrapolated to the small number of women whose menses had naturally ceased with ageing and who complained of debilitating symptoms of hot flushes, night sweats, headaches, joint pain, memory problems, and sleep disturbance. Menopause was thus radically reconfigured in French medicine in the final decade of the nineteenth century in response to an emerging interrelated endocrine-surgical nexus of treatments; and the surgical menopause created artificially in premenopausal women and then 'remedied' by ovarian ophotherapy became the template for the treatment of older women as well.

### The Emergence of Gynaecological Surgery and Artificial Menopause

It might be assumed that the practice of hysterectomising all women presenting with uterine tumours of any kind was a product of the emergence of gynaecological surgery in the context predating the histological distinctions later made between cancerous and non-cancerous cell types. But this was patently not so. From early in the nineteenth century, uterine fibroids were widely observed to be a distinct type of non-cancerous tumour that could certainly grow and replicate its own cells,<sup>8</sup> but that could not metastasise to neighbouring tissues or invade the lymphatic system to produce distal metastasis, as malignant cancers of the breast had been observed to do. French microbiologists had debated the nature of cancer cells throughout the 1840s, following the Paris histopathologist Herman Lerbert's experiments showing unique cell types present in the uterine tumours that had been clinically identified as malignant.<sup>9</sup> Uterine fibroid tumours lacked these cancerous cell types and had a unique fibrous tissue structure all of their

<sup>6</sup> Robert Courrier, *La Physiologie de l'ovaire* (Alençon, Imprimerie alençonnaise, 1948).

<sup>7</sup> Samuel Pozzi & Félix Jayle, *Traité de gynécologie clinique et opératoire* [1890], 4th ed., 2 vols (Paris: Masson et Cie, 1905–1907), vol. 2, 779; Félix Jayle, *Ophothérapie ovarienne dans la ménopause artificielle post-opératoire et la ménopause naturelle* (Paris: Masson, 1898).

<sup>8</sup> Jean Buisson, *Contribution à l'étude des fibromes après la ménopause*. Thèse (Paris: Jouve, 1927).

<sup>9</sup> Ann La Berge, 'Dichotomy or Integration? Medical Microscopy and the Paris Clinical Tradition', in Caroline Hannaway & Ann Le Berge, eds, *Constructing Paris Medicine* (Amsterdam: Rodopi, 1998), 275–312 [298–300]; Ornella Moscucci, *The Science of Woman: Gynaecology and Gender in England, 1800–1929* (London: Palgrave, 2016), 53–54.

own.<sup>10</sup> This was not something that could be used for diagnosis, since it required the tumour to be extracted first. But that the vast majority of fibroids had a recognisable, non-malignant histological presentation—with the clinical features of slow-growing benign masses producing only local pressure and haemorrhage symptoms—was widely understood well before hysterectomy or oophorectomy were commonly performed in France. Uterine cancer, on the other hand, was viewed as having ‘clearly accusable symptoms’ which were not easily confused with those of benign fibroid tumours.<sup>11</sup> The practice of hysterectomising women in their thirties and forties for benign conditions, which became common in France from the mid-1870s, did not emerge as a result of any ambiguity about what constituted cancerous tumours and what did not. Gynaecologists certainly recognised that a tiny percentage of apparently benign uterine tumours would turn out to be malignant on histological analysis, just as they do today.<sup>12</sup> But this was not the justification offered by the first surgeons and gynaecologists who performed this radical and dangerous surgery. Rather, their rationales focused on the symptoms of which the patients complained (especially constipation and haemorrhagic bleeding), on the purported uselessness of the uterus and ovaries once a woman approached menopause (even within ten to fifteen years), on the general greater prevalence of cancer later in women’s old age, and on the technical difficulties of selectively removing just the tumour itself (myomectomy) while conserving the uterus and ovaries.

Gynaecology in the broadest sense was an ancient field and was distinguished throughout the history of medicine, with the Latin word becoming increasingly common from the early seventeenth century and the French word appearing in the 1830s. Up to this time, the term referred broadly to the diseases of women including, but not limited to, those relating to their reproductive organs.<sup>13</sup> While numerous nineteenth-century French doctors had addressed questions of gynaecological pathology, including the age-related cessation of menses (which, as we have seen, was viewed as ‘not a disease’ but was treated like one anyway), before the 1880s few doctors considered themselves solely experts in the care of women’s reproductive organs. French obstetrics had emerged as a discipline of its own since the seventeenth century, becoming fully medically professionalised by the beginning of the nineteenth century.<sup>14</sup> Given that many matters relating to pregnancy, fertility, menstruation, and childbirth were already covered by obstetrics,

<sup>10</sup> Georges Pouchet, *Précis d’histologie humaine d’après les travaux de l’école française* (Paris: Masson, 1864), 100; Jean Casimir Félix Guyon, *Des tumeurs fibreuses de l’utérus* (Paris: Adrien Delahaye, 1860), 21–22.

<sup>11</sup> F. L. Pichot, *Étude clinique sur le cancer du corps et de la cavité de l’utérus* (Paris: Henri Rey, 1876), 18.

<sup>12</sup> Jonas Abeille, *Des corps fibreux de l’utérus* (Paris: E. Thunot, 1868), 7.

<sup>13</sup> Helen King, *Midwifery, Obstetrics and the Rise of Gynaecology* (London: Routledge, 2007).

<sup>14</sup> Nathalie Sage Pranchère, *L’École des sages-femmes: Naissance d’un corps professionnel (1786–1917)* (Tours: Presses Universitaires, 2017).

gynaecology only made sense as a distinct discipline if there were substantial women's health conditions it pertained to treat that went clearly beyond this. Menopause, like hysteria and nymphomania, was just such a condition. The growing association of uterine and ovarian pathologies with it, both benign though sometimes symptomatic conditions such as uterine fibroids, ovarian cysts, and uterine prolapse, and deadly forms of cancer, suggested an important patient cohort of women in their forties and fifties, who thus attracted the attention of this new and expanding surgical discipline.

Late nineteenth-century gynaecological monographs, textbooks, theses, and articles in medical journals had a notably different tone from much of the medical writing on menopause up to this time. Devoting far less space to characterising women's general 'nature' with reference to ideas about their nervousness and sensibility inspired by Pierre Roussel, they instead focused far more on technical description and surgical skills, showing more nuance in the denomination of specific pathologies and greater cognisance of changing, global research trends. The growth of gynaecological surgery in the second half of the nineteenth century was an international and intercultural movement, and major French gynaecologists were far more aware of clinical practices and research trends in other countries—especially the work of surgeons and gynaecologists in Germany, Austria, England, Scotland, Italy, and the United States—than were general menopause medical and hygiene writers.<sup>15</sup> Consequently, they appear far more medically serious than the often lyrical, speculative, and repetitious French medical writing on menopause or women's critical age from 1799 to 1880. There was (mostly) no longer any talk of supposedly Hippocratic aphorisms, nor insistent correctives of supposed past medical errors of the kind that characterised nineteenth-century French menopause doctors' historical stories about their own revolutionary historical importance.

Numerous doctoral dissertations and books on surgical techniques of hysterectomy and oophorectomy were written between 1842 and 1900, not only by French but also by German, American, Irish, Scottish, Italian, Spanish, and English doctors.<sup>16</sup> Such surgeries, conducted before the advent of aseptic

<sup>15</sup> Surgeons' travel writings summarising gynaecological practices in other countries were common: e.g. Dr Poulet, *La Gynécologie à l'étranger* (Lyon: Riotor, 1879); A. Brissay, *Fragments de chirurgie et de gynécologie opératoire contemporaines* (Paris: O. Doin, 1887).

<sup>16</sup> Eugène Kœberlé, *Documents pour servir à l'histoire de l'extirpation des tumeurs fibreuses de la matrice par la méthode sus-pubienne* (Paris: J. B. Baillière et fils, 1864); Horatio Robinson Storer, *Successful Removal of the Uterus and Both Ovaries* (Boston: David Clapp & Son, 1866); Stanislas Caternault, *Essai sur la gastrotomie dans les cas de tumeurs fibreuses péri-utérines; précédé des 8 premières observations relatives aux 8 premières ablations de la matrice pratiquées par E. Kœberlé* (Paris: J. B. Baillière et fils/London: Hippolyte Baillière, 1866); Jules Émile Péan and Léopold Urdy, *Hystérotomie: De l'ablation partielle ou totale de l'utérus, etc.* (Paris: Adrien Delahaye, 1873); Alfred Hegar, 'Zur Ovariectomie, die intraperitoneale Versorgung des Stiels der Ovarientumoren; Schicksale und Effecte versenkter Ligaturen, abgeschnürter Gewebstücke, Brandschorfe, vollständig getrennte Massen oder zurückgelassener Flüssigkeiten in der Bauchhöhle', *Gynäkologie*, 36, *Klinische Vorträge*,

technique or antibiotics, were almost always deadly; but doctors began taking new risks with them in French, English, and German medicine after the 1840s, approaching them as experimental surgeries that could help to develop general abdominal laparotomic technique.<sup>17</sup> While many such surgeries were initially without success in terms of patient survival, in the 1860s reports began accumulating of successful operations, at least with short-term post-operative survival—long-term follow-up was rare. Fibroid tumours that dangled into the vagina from pedicles attached to the inner surface of the uterus could more easily be removed by dilating the cervix and incising the tumour from its pedicle, without the need for hysterectomy or indeed for any excision of the organs. Other pedunculated tumours on the outer surface of the uterus could also be removed without hysterectomy, although this required the far more dangerous laparotomy (sometimes also called either *gastrotonomie* or *gastrotomie*)—abdominal incision. But both of these kinds of fibroids together accounted for less than half of the very common benign tumours that many women developed in their thirties and which continued to grow into their forties. While a few surgeons focused on removing just the tumour, while conserving the uterus and ovaries in the surgery known as myomectomy,<sup>18</sup> most did not even try to do this, opting instead for complete excision of the offending organs themselves—both the uterus and ovaries. For modern medicine, abdominal hysterectomy and oophorectomy were undoubtedly the most exciting surgeries in terms of general abdominal technical advancement given that women's reproductive organs were among the few abdominal organs (unlike the stomach, kidneys, heart, lungs, liver, spleen, or most of the bowel) that could be surgically removed without fatally impacting the patient's individual physiological function—assuming they survived the surgery. Given too how powerful were the prevalent negative nineteenth-century medical views of the uterus as a morbid organ that deranged women's overall physiology throughout the lifespan and as atrophying suddenly with the final cessation of menses, it is perhaps unsurprising that it was targeted for removal in women defined as approaching menopause and deemed no longer capable of, or appropriate for, conception.

109 (1877): 811–830; A. P. Gavilan, *De l'hystérectomie vaginale dans les cas de fibromes utérins* (Paris: Berthier, 1888); J. C. Irish, *Treatment of Uterine Fibro-Myomata by Abdominal Hysterectomy* (Boston: Damrell & Upham, 1890); Sébastien Le Moinet, *Hystérectomie abdominale totale et hystérectomie abdomino-vaginale pour fibromes de l'utérus* (Paris: G. Steinheil, 1894); Albert Ramon, *Hystérectomie abdomino-vaginale: Méthode Péan dans les cas de gros fibromes utérins* (Paris: G. Steinheil, 1893); Jules-Henri Pigeonnat, *Gros fibromes utérins (Hystérectomie abdominale, méthode-péritonéale)* (Paris: Henri Jouve, 1896); Paul George Caboche, *Hystérectomie abdominale totale (procédé de Doyen); Manuel opératoire et résultats* (Paris: G. Steinheil, 1897).

<sup>17</sup> Moscucci, *The Science of Woman*, 170.

<sup>18</sup> Oscar Larcher, *Contributions à l'histoire des polypes fibreux intra-utérins à apparitions intermittentes* (Paris: Asselin, 1867); Louis Dartigues, *Chirurgie conservatrice de l'utérus et des annexes dans le traitement des fibromes* (Paris: Maloine, 1901).

The conceptual ground was laid in medical writing on the diseases of women even well before the practice of hysterectomising women around menopause became common. In 1858 the work of the renowned Würzburg professor of obstetrics/gynaecology Friedrich Wilhelm Scanzoni von Lichtenfels (1821–1891) on the diseases of women's sexual organs, published the previous year,<sup>19</sup> was translated from German to French. It conveyed something of the views about women's ageing and cancer prevalence which were significant in German medicine of the early nineteenth century but with which French scholars, even those writing about menopause, had hitherto only rarely engaged.<sup>20</sup> Scanzoni referred repeatedly throughout his *Practical Treatise on the Diseases of Women's Sexual Organs* to the idea that although certain kinds of women's diseases became rarer after the final cessation of menses due to the diminished influence of the uterus, other pathologies became more common in older women. Those approaching the final cessation but still menstruating irregularly were at particularly high risk of troublesome fibroid tumours, polyps, and cysts, as well as haemorrhagic complaints and dangerous cancers of the breast, uterus, or ovary.<sup>21</sup> He said that the perturbation of menstrual function with the approach of menopause caused an 'excess of nutrition' that fed the growth of cancer cells, resulting in breast cancer being more common in women between the ages of 40 and 50 years than at any other age.<sup>22</sup> Pathologies emerging during the critical age before the menses ended should be watched very closely, Scanzoni advised, since they had a tendency to progress rapidly at this time of life.<sup>23</sup> Surgeries entailing extirpation of the uterus and ovaries, which Scanzoni said were the best chance medicine had of curing dangerous cancers, were discussed throughout the book; but he acknowledged that most of the surgeries of this kind of the uterus which had been attempted were for cancers that were already well developed, and that there were as yet few cases in which the patient had survived the surgery. Fibroid tumours occurring during the critical age, he noted, were not dangerous even though they sometimes entailed troublesome symptoms, which generally diminished, along with the volume of the tumour, following menopause. He considered surgeries to remove such tumours to be the best cure in the case of symptomatic fibroids, saying this was an approach with which 'everyone agrees'; though he did not appear to consider it either desirable or necessary to remove the uterus or ovaries along with the tumour. He asserted that fibroids did not generally recur after being extirpated—possibly because he had mostly treated women close to menopause, when recurrence was uncommon.<sup>24</sup>

<sup>19</sup> Friedrich Wilhelm Scanzoni (von Lichtenfels), *Lehrbuch der Krankheiten der weiblichen Sexualorgane* (Vienna: Wilhelm Braumüller, 1857).

<sup>20</sup> Friedrich Wilhelm Scanzoni (von Lichtenfels), *Traité pratique des maladies des organes sexuels de la femme*, trans. M. Dor & A. Socin (Paris: J. B. Baillière et fils, 1858), 72, 144, 215, 252.

<sup>21</sup> *Ibid.*, 168, 543.

<sup>22</sup> *Ibid.*, 543.

<sup>23</sup> *Ibid.*, 272.

<sup>24</sup> *Ibid.*, 215.



The Strasbourg professor of medicine Eugène Kœberlé (1828–1915) was the first French surgeon to publish on his attempts at abdominal hysterectomy for the treatment of benign uterine fibroids. He proposed that this was the best method for removing large tumours of this kind, since attempting to extract just the tumour itself required it to be morcellated, which was too dangerous, causing massive haemorrhage.<sup>25</sup> There was no point trying to treat cancerous tumours with this surgery, he noted, since cancer was impossible to cure.<sup>26</sup> He claimed instead that hysterectomy was needed for benign fibroid tumours that were not easily separable from the uterus, whatever their size.<sup>27</sup> But Kœberlé viewed these growths as most common in women in their thirties, and made no mention of them having any relationship to menopause.<sup>28</sup> While he initiated the dangerous French experiment on women that was the nineteenth-century practice of hysterectomy, he was not the one to target older women in relation to menopause as his non-consensual experimental subjects—he extended that honour instead to younger women.

However, from early in the development of the practice of gynaecological surgical removal of the uterus and or ovaries, the question of menopausal women as a group likely to require such surgeries was raised. The 1866 *Practical Treatise of Disease of the Uterus, Ovaries and Fallopian Tubes* by the Montpellier professor of medicine and clinical surgery Amédée Courty addressed the question of whether gynaecological diseases could be expected to improve or become exacerbated by menopause. He said that some uterine diseases could persist for many years after menopause without causing any pain or ‘provoking any sympathetic troubles’ (e.g. hysteria), remaining in a sort of latent state,<sup>29</sup> but he also said that menopause brought new risks of disease:

The *âge de retour* certainly helps make some [uterine diseases] disappear via the cessation of periodic ovulation as well as the menstrual flux... But it does not always make the usual flux cease; far from it, it can sometimes increase in intensity, no longer having any regulator... Moreover, this *âge de retour* often itself produces a predisposition toward diathetic afflictions, and consequently, if it suppresses one danger, it brings another.<sup>30</sup>

Courty identified non-cancerous masses growing on the uterus and ovaries as particularly common in women approaching menopause. While most fibroid tumours and ovarian cysts were clearly ‘benign’, he said, if they grew to a large volume, distending the abdomen or continuing to grow indefinitely, it was

<sup>25</sup> Kœberlé, *Documents pour servir à l'histoire de l'extirpation*, 11.

<sup>26</sup> *Ibid.*, 3.

<sup>27</sup> *Ibid.*, 9.

<sup>28</sup> *Ibid.*, 4.

<sup>29</sup> Amédée Courty, *Traité pratique des maladies de l'utérus, des ovaires et des trompes* [1866] (Paris: P. Asselin, 1872), 309.

<sup>30</sup> *Ibid.*, 176–177.

impossible for it not to have a profound impact on the patient's general health. He identified three specific ways in which such formations 'altered the constitution' of the patient: 'by its mechanical interference with the movements of the organs' and their 'performance of their functions'; by the 'irritation or sympathetic troubles' it provoked in some organs; and by its consumption of nutrients, which deprived the woman's other tissues of nourishment. He emphasised that this was particularly a concern in young women whose tumours had grown rapidly, but he also joined in the physiognomic speculations about gynaecological disease that had been suggested by English surgeons enthusiastic to perform oophorectomy on women in their forties in this same period.<sup>31</sup> Here the idea was that women whose uterus or ovaries were diseased would develop certain facial characteristics of premature ageing: the face became wrinkled, the lips thinner, the nose pointier, the eye sockets deeper, and the eyes themselves more protruding. These were 'the traits of premature old age', juxtaposed with eyes that still shone like those of a younger person. These were the signs 'that bear witness to a vitality suffocated by the development of a parasite', the tumour. Courty here even reproduced a drawing of a 42-year-old woman with the 'facies ovarien'—someone with a gynaecological tumour as indicated by her supposedly haggard face—produced by Thomas Spencer Wells in his 1865 book on *Diseases of the Ovaries*, of which a short summary appeared in French translation in 1867, with a full French translation following in 1883.<sup>32</sup> Courty's qualifications about younger women being the group of greater concern thus appear less resounding, as he referred to the notion that the signs of facial premature ageing in women in their forties might be taken as indicators of gynaecological pathologies in need of surgery. Nonetheless, Courty remained conservative in his recommendations of surgeries such as hysterectomy and oophorectomy, considering the substantial mortality risk they entailed still in the France of the 1860s and early 1870s (around 60%—slightly lower than the European average),<sup>33</sup> remarking of the many attempted surgeries of this kind where the patient had not recovered: 'it is not possible to encourage surgeons to follow this path until the causes of death following the operation, being better known, can be more effectively avoided or fought', or until cases where success was more probable became better identified.<sup>34</sup>

<sup>31</sup> Ibid., 1069.

<sup>32</sup> Ibid., 1070; Thomas Spencer Wells, *Diseases of the Ovaries* (London: John Churchill, 1865), 288; Thomas Spencer Wells, *Du traitement des kystes et des tumeurs ovariennes* (Paris: Leclerc, 1867); Thomas Spencer Wells, *Des tumeurs de l'ovaire et de l'utérus, leur diagnostic et leur traitement* (Paris: G. Masson, 1883).

<sup>33</sup> Courty, *Traité pratique des maladies de l'utérus, des ovaires et des trompes*, 298–299, 443.

<sup>34</sup> Ibid., 1121. Percentage figure is calculated from the total reported deaths within the total reported cases in Jules Péan & Léopold Urdy, *Hystérotomie: De l'ablation partielle ou totale de l'utérus par la gastrotomie: Étude sur les tumeurs qui peuvent nécessiter cette opération* (Paris: Adrien Delahaye, 1873).

## Jules Péan's Dangerous Experimental Surgeries and Their Rationales

Other doctors citing both Courty and Spencer Wells were even less cautious than they. The renowned Paris surgeon Jules Péan (1830–1898) was one who urged doctors to show ‘sang-froid’ and determination towards the experimental practice of laparotomic hysterectomy—removal of the uterus and ovaries via abdominal incision (which he called *hystérotomie*), despite the high mortality risk it entailed.<sup>35</sup> Péan performed surgeries for public viewing at the Hôpital Saint-Louis in Paris, which is how Toulouse-Lautrec’s 1891 painting of him in the act came into existence (Image 10.1).<sup>36</sup> The medical satirist Léon Daudet, in his memoirs of 1914, wrote of Péan ‘effortlessly removing half a dozen uteruses and a few pairs of ovaries’ in a single session, describing him as a ‘tragic prestidigitator’ and the results as a ‘scientific massacre.’<sup>37</sup> Péan’s 1873 book on this new gynaecological surgery written with his intern, the Montpellier-trained surgeon Léopold Urdy, proposed to provide an account of all the situations in which partial or full hysterectomy, with removal of both ovaries as well, was ‘necessary.’ He appeared to view the advancement of the practice of removing women’s reproductive organs as ‘the glory of contemporary surgery’, with a ‘brilliant future’, remarking that it ‘should definitively be classed among the great surgical operations.’<sup>38</sup> He said that the ‘law of surgical progress’ dictated that, since oophorectomies by laparotomy (abdominal incision) were already being performed (particularly in England), hysterectomy by laparotomy now had to be advanced as well.<sup>39</sup> Numerous surgeons in various national contexts had removed uteri in recent years without initially intending to, having operated for a different reason, but Péan took pride in what he claimed was the fact that it was a Frenchman, Kœberlé, who performed the first intentional and successful hysterectomy in 1863.<sup>40</sup> In fact Kœberlé himself acknowledged the Manchester surgeon A. M. Heath in 1843 as the first.<sup>41</sup> In one of his case examples, Péan mentions first being keen to perform the surgery himself to impress a distinguished professor who was observing him.<sup>42</sup> Like Courty, he too cited the *facies ovarium* idea—that uterine and ovarian pathologies marked women’s faces with premature ageing and bulging eyes (Image 10.2).<sup>43</sup> Perhaps it was for this reason that he so commonly performed the surgery on women in their forties who, as *demi-vieilles* (half-old-women, as Yvette Guilbert called them) fitted that visual portrait better than either younger or much older women. He extended the idea further too, adding that women with malignant

<sup>35</sup> Ibid., 14.

<sup>36</sup> Jeffrey K. Aronson & Manoj Ramachandran, ‘The Diagnosis of Art: Dr. Péan’s Operation’, *Journal of the Royal Society of Medicine* (2008): 423–424.

<sup>37</sup> Léon Daudet, *Devant la douleur* (Paris: Nouvelle librairie nationale, 1914), 65–66.

<sup>38</sup> Péan & Urdy, *Hystérotomie*, v–vi. <sup>39</sup> Ibid., 2. <sup>40</sup> Ibid., 8.

<sup>41</sup> Kœberlé, *Documents pour servir à l’histoire de l’extirpation*, 9.

<sup>42</sup> Péan & Urdy, *Hystérotomie*, 63. <sup>43</sup> Ibid., 105.



**Image 10.1** Henri Toulouse-Lautrec, *Une opération par le Docteur Péan à l'Hôpital International*, c.1891. Courtesy of Wikimedia, Creative Commons Attribution-ShareAlike 4.0 International.

uterine cancers had a different look again to those with the *facies ovarium*. These women instead were pale, jaundiced, underweight, and exhausted.<sup>44</sup>

Péan, like Courty and other surgeon-gynaecologists, insisted that he only performed hysterectomy when a woman's life was already threatened by an existing

<sup>44</sup> Ibid., 113.



Fig. 263 (\*).

**Image 10.2** Thomas Spencer Wells, drawing of a 42-year-old woman with the ‘*facies ovarium*’. Reproduced in Courty, *Traité pratique des maladies de l’utérus et ses annexes*, 1872, Fig. 286. With permission from the Bibliothèque Nationale de France.

gynaecological pathology. In practice, however, this was difficult because most gynaecological conditions were not cancer and nor were they lethal. Deaths from gynaecological cancer constituted less than half of the 2.2 per cent general women’s cancer mortality in English statistics, whereas benign fibroid tumours had been observed in between 25 and 40 per cent of all women by the time they reached menopause.<sup>45</sup> All those practising the surgery appeared to agree on the ethical parameter of only performing dangerous surgeries if a woman’s pathologies already threatened her life, but this sat in tension with the availability of patients on whom they could practice the surgery, and with surgeons’ enthusiasm and ambition for performing it. Their need to practice it more often was not only a product of careerist ambition, since the surgeon with greater skill in performing the surgery was also assumed to be able to lower the mortality rate and cure more women of their diseases. It was a complex ethical conundrum, mixing some

<sup>45</sup> David Berry Hart & Alexander Hugh Freeland Barbour, *Manual of Gynecology* [1882], 2nd ed. (Edinburgh: W. & A. K. Johnston, 1883), 436; Amédée Dechambre, ed., *Dictionnaire encyclopédique des sciences médicales*, Series 5, vol. 2 (Paris: G. Masson & P. Asselin, 1886), 81.

amount of genuine concern for helping patients with a lot of professional pride and ambition, all in the face of no available knowledge of any long-term effects of the surgeries they were performing. By way of justification for his own enthusiasm for hysterectomy, Péan noted that the uterus did not ‘represent an indispensable function for the conservation of the individual’, and that its absence was ‘perfectly compatible with life.’ This was particularly relevant for older women because ‘once the sexual life of women is terminated after menopause’ and the uterus no longer has any role, ‘it becomes useless and even dangerous through the numerous afflictions of which it can be the seat.’<sup>46</sup>

From the many discussions about mortality rates of different surgeries in the writings of Péan and other scholars, it was clearly the single most significant number from the point of view of gaining prestige as a gynaecological surgeon—surely a good marker that was also in the interest of women’s health? The only issue was that it was widely recognised that those women suffering from the most active and dangerous cancers were also the least likely to survive abdominal surgery, making them a potential liability for surgeons wishing to present a better percentage of successful surgeries in their publications. So while all the surgeons agreed in principle that hysterectomy was only to be used in cases where women’s lives were already at risk, women presenting with signs of advanced malignancy represented only a small minority of Péan’s and other surgeons’ case observations.<sup>47</sup> As Péan himself noted, such clearly malignant growths were uncommon compared to the far more ubiquitous benign uterine fibroids and ovarian cysts.<sup>48</sup> Péan said that of the seventeen cases of advanced uterine cancer that another French surgeon Philippe Boyer had attempted to treat, only three of the patients had survived the operation, and even those did not live for more than a year or so after their surgery, and it was for this reason that Péan himself tried to avoid operating on such patients.<sup>49</sup> Péan also said that he refused to operate on women older than about 55 for a similar reason, because if the patient was of a ‘too-advanced age’, she would be in ‘a considerable state of weakness.’<sup>50</sup> He, on the other hand, was able to boast seven successful surgeries out of the nine he had recently performed—only a 22.2 per cent mortality rate, much lower than any other surgeon had yet reported, although he acknowledged it could just be due to a lucky streak.<sup>51</sup> His success was perhaps surprising indeed given that infections causing fever were already understood to be one of the major causes of death in surgery, and Péan was an opponent of the microbial theory of Louis Pasteur, rejecting the emerging antiseptic surgical methods about which other doctors such as the

<sup>46</sup> Péan & Urdy, *Hystérotomie*, 12.

<sup>47</sup> Moscucci, *The Science of Woman*, 67.

<sup>48</sup> Péan & Urdy, *Hystérotomie*, 80.

<sup>49</sup> *Ibid.*, 32. Philippe Boyer, *Traité des maladies chirurgicales* [1818], 7 vols, 5th ed. (Paris: Labé, 1846), vol. 5, 942–958.

<sup>50</sup> Péan & Léopold, *Hystérotomie*, 51.

<sup>51</sup> *Ibid.*, 24.

Scottish surgeon Joseph Lister (1827–1912) had already written, and about which his French compatriots Ulysse Trélat (1828–1890) and the young Samuel Pozzi (1846–1918) were at this same time becoming enthusiastic.<sup>52</sup> Péan's trick instead may have been his careful patient selection.

With so many of the patients who most needed gynaecological surgeries, as well as all women over age 55, excluded from his surgical list, how indeed could Péan find enough women to hysterectomise successfully? He evoked a portrait of a hypothetical woman approaching menopause, perhaps summing up his ideal target for hysterectomy: one suffering fatigue, a feeling of heaviness in the abdomen, constipation, some loss of appetite, perhaps a little nausea. Such a woman, he noted, would not be easily convinced that she needed to let a doctor examine her genital organs. But he emphasised that catching uterine disease in the very early stages implied the best chance of a cure. Such a woman generally only became concerned once a mass in her belly started to grow while she continued to menstruate (indicating it could not be a pregnancy).<sup>53</sup> Péan's eighteen cited cases where the age was recorded, which included nine of his own and nine cases of the other surgeons who had hitherto recorded such surgeries for tumour removal, comprised ten women (55.5%) in the age range of 40–53 years, and eight (45.5%) women in their thirties. But several of the younger women, such as a Mlle Chaux, aged 38, who died from her surgery, presented with more worrying symptoms suggestive of possible malignancy, such as a rapidly growing mass in their abdomen, recent sudden weight loss, and substantial ascites (fluid in the abdominal cavity).<sup>54</sup> The success rate in such surgical patients was widely recognised to be lower than in women with large, slow-growing abdominal masses and haemorrhagic bleeding or regular heavy, painful periods—who tended more often to be women in their forties or early fifties.<sup>55</sup> Women viewed as approaching the 'critical age' or menopause were to some extent then targeted for the dangerous experimental surgery that was hysterectomy in this period, but an almost equivalent number of women in their thirties were also subjected to it. However, there was an important difference in the kinds of growths for which the older women were prescribed this radical surgery.

Women in their forties and fifties were clearly more likely to be prescribed hysterectomy with oophorectomy for conditions that were widely recognised as

<sup>52</sup> Joseph Lister, 'Observations on Ligature of Arteries on the Antiseptic System', *The Lancet*, 3 April (1869): 451–455; Joseph Lister, 'The Antiseptic Method of Dressing Open Wounds', *Medical Record*, 11 (1876): 695–696; Lindsay Fitzharris, *The Butchering Art: Joseph Lister's Quest to Transform the Grisly World of Victorian Medicine* (London: Penguin, 2018), 227–228; Samuel Pozzi, *Quelques observations à propos du pansement de Lister appliqué aux plaies d'amputation et d'ablation de tumeurs* (Paris: la Veuve A. Delahaye, 1876); Caroline de Costa & Francesca Miller, *The Diva and Doctor God: Letters from Sarah Bernhardt to Doctor Samuel Pozzi* (Bloomington: Xlibris, 2010), 99–101.

<sup>53</sup> Péan & Léopold, *Hystérotomie*, 103.

<sup>54</sup> *Ibid.*, 73–78.

<sup>55</sup> *Ibid.*, 32; Kœberlé, *Documents pour servir à l'histoire de l'extirpation*, 15; Louis Bourlet, *Étude sur la métrite interne chronique après la ménopause*. Thèse (Paris: A. Parent, 1879).

benign (meaning non-lethal), as the clinical medicine of this time defined slow-growing uterine and ovarian tumours, cysts, and polyps. This choice drew on the justification provided by Péan of older women's uteri and ovaries as now 'useless' and a potential liability for future hypothetical rare lethal diseases. Numerous doctors had described fibroids (which were frequently diagnosed by palpation), as not particularly dangerous, and only sometimes even symptomatic, noting that they were widely reported in autopsies of women who had died of tuberculosis and other unrelated diseases, without ever having caused suspicion of their presence—something Péan himself acknowledged.<sup>56</sup> He also acknowledged a widely agreed medical fact about fibroids (both then and now) that they were rarely found in women older than 55, and had often been observed to atrophy and even disappear completely after the final cessation of menses.<sup>57</sup> Selecting such patients for abdominal hysterectomy made little sense if they were close to menopause as predicted by their age; it might be expected that gynaecologists would advise such women simply to wait it out, rather than risk a 60 per cent likelihood of dying in surgery for the treatment of a benign growth, something Péan himself acknowledged to be a sensible conclusion.<sup>58</sup> Indeed he cited one such case of a woman who had already ceased menstruating, whom he persuaded not to have surgery and whose fibroid disappeared some time afterwards.<sup>59</sup> And yet in all his other case observations of hysterectomy for fibroid treatment in women in their forties, he did not mention any such conversations, appearing instead rather enthusiastic to offer them a surgical solution: hysterectomy.

Péan described conversations in which he recommended abdominal surgery to women in their forties with likely benign tumours who had not previously considered it, as well as conversations with women who came to the hospital with the preformed intention to have some sort of surgery to remove their tumour.<sup>60</sup> Did he inform these women of the danger that awaited them in submitting to such a surgery and of how experimental it still was? Péan, choosing his words carefully here, said of one such patient, 'I concealed from her neither the difficulties nor the dangers,' and that he only proceeded with the surgery after obtaining her *husband's* consent.<sup>61</sup> But it is not clear what, if anything, Péan told the patient herself about the specific surgery he planned to give her, either its permanent sterilising

<sup>56</sup> Péan & Léopold, *Hystérotomie*, 47; Marie Anne Victoire Boivin & A. Dugès, *Traité pratique des maladies de l'utérus et de ses annexes, accompagné d'un atlas de 41 planches in-fol. gravées et coloriées, représentant les principales altérations morbides des organes génitaux de la femme*, 2 vols (Paris: J. B. Baillière, 1833), vol. 1, 327; Kœberlé, *Documents pour servir à l'histoire de l'extirpation*, 4–6.

<sup>57</sup> Péan & Urdy, *Hystérotomie*, 33–35; Kœberlé, *Documents pour servir à l'histoire de l'extirpation*, 4–6; Abeille, *Des corps fibreux de l'utérus*, 4; Charles Henry F. Routh, *On Some Points Connected with the Pathology, Diagnosis and Treatment of Fibrous Tumours of the Womb: Lettsomian Lectures on Midwifery and Diseases of Women* (London: T. Richards, 1864), 38; Mara Ulin et al., 'Uterine Fibroids in Menopause and Perimenopause', *Menopause*, 27/2 (2020): 238–242.

<sup>58</sup> Péan & Léopold, *Hystérotomie*, 36.

<sup>59</sup> *Ibid.*, 36.

<sup>60</sup> *Ibid.*, 53, 179.

<sup>61</sup> *Ibid.*, 53–54.



effect or its extreme danger. Some patients clearly understood that surgeons could remove their unsightly and uncomfortable tumours, but there is no indication that they were aware that their uteri and ovaries would also be removed, or that they were advised that their tumour was most likely not going to kill them, whereas they were more likely to die from the procedure than to recover from it. Such clear communication would perhaps be surprising for nineteenth-century surgeons, given the low esteem in which so many doctors held women's intelligence, which they viewed as naturally inferior to men's and similar to that of a child; and given that the concept of informed consent was not clearly part of French doctors' ethical training, having cohered in biomedicine only in the second half of the twentieth century (though antecedents have been found throughout medical history).<sup>62</sup> Certainly, Péan appeared to have a sense that he owed women some amount of information before risking their lives to reduce their symptoms, while advancing surgical knowledge and his own career.

On the other hand, according to Péan's and others' own explicit ethical frame, selecting older women with benign conditions for this surgery clearly contradicted the stated criteria of only practising dangerous abdominal hysterectomy in patients whose lives were already threatened by their existing gynaecological pathologies. Péan's solution to that problem was to exaggerate the risks and symptoms of uterine fibroids—against the grain of a widespread medical consensus which affirmed their benignity—and to speak of them together with malignant tumours in relation to his proposed therapeutic surgical solution. He said that any kind of tumour could cause debilitating enough symptoms to justify the dangerous experimental use of abdominal hysterectomy.<sup>63</sup> Because fibroids sometimes produced appetite suppression, constipation, or diarrhoea, they therefore potentially could be, eventually, a cause of death, implying that the surgery was necessary to save women from starvation.<sup>64</sup> He said that although most uterine tumours and ovarian cysts were not cancerous, representing an 'inconvenience rather than a disease' they could also cause haemorrhages so severe as to threaten women's lives, and pain so intense as to prevent women from sleeping, and compression of the digestive organs so extreme as to result in malnutrition.<sup>65</sup> He claimed that most of his case examples were of this kind, and he saw it as a 'cruel alternative' from which he had to choose in either letting the women 'suffer and succumb' to their benign tumours/cysts, or risk the operation which he assumed to be as dangerous as the existing reports suggested (around 60%

<sup>62</sup> Alexander Morgan Capron, 'Where Did Informed Consent for Research Come From?' *The Journal of Law, Medicine & Ethics*, 46/1 (2018): 12–29; P. Dalla-Vorgia et al., 'Is Consent in Medicine a Concept Only of Modern Times?', *Journal of Medical Ethics*, 27/1 (2001): 59–61. Doi:10.1136/jme.27.1.59.

<sup>63</sup> Péan & Léopold, *Hystérotomie*, 228.

<sup>64</sup> *Ibid.*, 40.

<sup>65</sup> *Ibid.*, 47.

mortality).<sup>66</sup> However, the case observations he provided in this very publication tell a somewhat different story of patient presentation.

Undoubtedly some of his patients had indeed grappled with painful and heavy bleeding for many years, such that they may possibly have chosen a life-threatening treatment that offered some hope of a cure, though it does not appear that Péan ever explained to them exactly how high this risk of death from surgery was. Mme Cornau, aged 42 (Observation IV) who survived her oophorectomy surgery, had complained of haemorrhages that made it difficult for her to 'practice her occupation as a concierge'; she was clearly anaemic, and Péan said that she had begged him to operate on her (without explicit mention of what the surgery would be).<sup>67</sup> Nonetheless, after her surgery, Péan said she still suffered similar symptoms every menstrual period, albeit with less blood loss.<sup>68</sup> Mlle Virginie Gauthier, aged 45 (Observation VII) was also fortunate to be one who survived the abdominal hysterectomy with oophorectomy that Péan gave her in 1870 as a cure for her apparently asymptomatic uterine fibroid which had slowly grown to a considerable size. Péan described her appearance as 'debilitated', with a hunched posture and rickets, and said that she had a weak pulse, but he referred to no gynaecological symptoms, pain, or digestive symptoms associated with her benign tumour.<sup>69</sup> Mlle Thérèse Lefèvre, aged 41 (Observation VI), had developed metritis along with the slow growth of an abdominal mass, but suffered no gastrointestinal symptoms or bloating, no weight loss or decline in strength, only a certain breathlessness when climbing stairs, and her complexion was described as 'yellow'. She too survived her hysterectomy with oophorectomy surgery.<sup>70</sup> Mme Baldé, aged 38 (Observation IX), was less fortunate, having suffered painful periods that had become heavier in recent years, with a rapidly growing tumour; she died shortly after her surgery, in a fever.<sup>71</sup> Péan also described a patient of Demarquay reported in the *Union médicale* of 1868, Mlle M., aged 43 (Observation XVIII), whose large, slow-growing uterine tumour (initially thought to be an ovarian cyst) had been accompanied by just one symptom—heavy painful periods, with mildly painful haemorrhages at other times. She too died in a fever the night after her surgery.<sup>72</sup> Notably, often the removed ovaries were observed to be entirely healthy.<sup>73</sup> Péan said this was done because, if the uterus was already being removed, the ovaries 'are no longer of any use', their presence being merely a cause of 'periodic congestion', and it was easier to cut it all out at once rather than detach the uterus from its appendages.<sup>74</sup>

Later Péan found a new idea for defending his practice of using the most dangerous surgical procedure known to medicine in the treatment of benign growths

<sup>66</sup> Ibid., 48.

<sup>67</sup> Ibid., 66–73.

<sup>68</sup> Ibid., 72.

<sup>69</sup> Ibid., 135–142.

<sup>70</sup> Ibid., 124–135.

<sup>71</sup> Ibid., 153–156.

<sup>72</sup> Ibid., 178–183.

<sup>73</sup> Ibid., 58, 73.

<sup>74</sup> Ibid., 217.

in women in their forties. In an 1893 article in the *Annales de gynécologie et d'obstétrique* entitled 'On the supposed benignity of uterine fibroids', he argued against the grain of most medical scholarship about these tumours, which considered them most commonly to atrophy after menopause.<sup>75</sup> He pointed to his own surgical record as proof that this could not be true, since of his 250 patients given hysterectomies for fibroid, 100 were in their forties, 70 in their thirties, 30 in their twenties, and 10 between the ages of 50 and 70.<sup>76</sup> His data actually conformed very well to the majority view that fibroids were a tumour of the fertile years and much less troubling to women after the cessation of menses; but he appears to have thought that their apparent prevalence among his patients of women in their forties presenting with symptomatic or large fibroids meant that the tumours must have something to do with menopause. It was a legacy of the past century of medical ideas about menopause as a critical age, which, despite referring to the final cessation of menses, actually focused far more on the hygienic management of women well before it. 'Menopause is thus in fact a critical age and not a beneficial age, as certain surgeons have pretended in order to disguise their impotence instead of admitting it,' Péan said, evoking the masculine prowess of the surgeon who was not afraid to penetrate with his scalpel.<sup>77</sup> Léon Daudet's memoir cited earlier said that Péan's displays of surgical prowess were much admired by silly women (*les femmes sottes*) who saw in 'crazed butchery... a spectacle of strength'.<sup>78</sup> As Bertrand Gibert has shown, surgeons performing hysterectomies and oophorectomies were widely satirised and characterised both by novelists and by the popular presses of the *fin de siècle*, which often implied that it was the desire of decadent women to acquire permanent contraception that provided the clientele for such clinicians.<sup>79</sup> But surgeons' own patient observations give no indication of this.

Péan also related his account of the danger fibroids posed to ongoing psychiatric theories of menopausal madness, here suggesting that it was these common uterine tumours which in fact caused the nervous complications associated with the genital influences on women's minds, resulting in hysteria, hypochondria, suicide attempts, sleepwalking, and precocious senility, as well as morphine addiction and alcoholism.<sup>80</sup> But he did not elaborate on this, perhaps aware that in French psychiatry of the 1890s hysteria was viewed as a nervous disease and was mostly no longer ascribed to the influence of the uterus. He seems rather to have grasped at every possible justification as to why women with non-lethal conditions should be exposed to such high risks of death in surgery. After twenty

<sup>75</sup> Jules Péan, 'De la prétendue bénignité des fibromes utérins', *Annales de gynécologie et d'obstétrique*, 39/1 (1893): 460–466.

<sup>76</sup> *Ibid.*, 461.

<sup>77</sup> *Ibid.*, 462.

<sup>78</sup> Daudet, *Devant la douleur*, 67.

<sup>79</sup> Bertrand Gibert, 'Des avatars littéraires: Le Cas du Docteur Pozzi', *Poétique* 2/190 (2021): 171–202.

<sup>80</sup> Péan, 'De la prétendue bénignité des fibromes utérins', 463.

years of practising abdominal hysterectomies, Péan's mortality rate in 1893 still sat at 15 per cent (30 deaths out of 200 surgeries), though he claimed (as in his 1873 work) that it was better in his most recent series.<sup>81</sup> Perhaps just another lucky streak? In 1895 he explained his turn away from abdominal hysterectomy to the vaginal entry form which was less lethal, exaggerating the risks of fibroids even more, claiming that it was necessary to remove even small tumours of this kind with hysterectomy to rescue 'these poor miserable sick women whose life is constantly menaced and poisoned by all sorts of ills' from succumbing to death before their tumours had grown large.<sup>82</sup>

Relative to surgical norms of his day, Péan was clearly viewed as something of a reckless cowboy. In 1872, as he and Urdy were preparing their 1873 manuscript on hysterectomy for publication, the Paris Académie de Médecine formally condemned the practice, following an oral report on the surgeries of Péan and Kœberlé presented to them by the eminent senior surgeon Jean Nicolas Demarquay (1814–1875).<sup>83</sup> Hysterectomy and oophorectomy remained vehemently opposed by many physicians and surgeons, who often pointed to the many lethal failures of both vaginal hysterectomy and especially abdominal laparotomy relative to the non-lethal gynaecological conditions they mostly pertained to treat,<sup>84</sup> as well as posing moral objections to the sterilising effect of the surgeries, particularly when used on women young enough to conceive. This was also probably why Péan focused so much on women in their forties, whom he viewed as already approaching menopause—after all, who would object to these women being made sterile? Even Péan's contemporaries who were themselves enthusiasts of rapid gynaecological surgical advancement were nonetheless critical of his experiments with hysterectomy, which they viewed as showing an excess of surgical aggression.<sup>85</sup> Major gynaecologists, such as Auguste Nonat in his 1,100-page *Practical Treatise of the Diseases of the Uterus, its Appendages, and the External Genital Organs* (1874), reiterated the common medical consensus that fibroids were primarily a tumour of the reproductive lifespan, diminishing or even disappearing after menopause.<sup>86</sup>

The young Paris graduate Samuel Pozzi in 1875 had accused Péan of exaggerating the danger of haemorrhagic bleeding caused by fibroids to justify his experimental hysterectomy technique on women with benign conditions, even as he credited

<sup>81</sup> *Ibid.*, 465.

<sup>82</sup> Jules Péan, 'Les Fibromes utérins', *Annales de gynécologie et d'obstétrique*, 44/1 (1895): 345–350.

<sup>83</sup> Auguste Nonat, *Traité pratique des maladies de l'utérus, de ses annexes, et des organes génitaux externes* (Paris: Adrien Delahaye, 1874), 1021; M. Tillaux, 'Communications: De l'hystérectomie au traitement des tumeurs fibreuses utérines', *Bulletin de l'Académie de Médecine*, 8 (1879), 1035–1048.

<sup>84</sup> Alphonse-Alexandre Boinet, *De la gastrotomie dans les cas de tumeurs fibreuses utérines interstitielles, péri-utérines et dans les tumeurs dites fibro-cystiques* (Paris: G. Masson, 1873).

<sup>85</sup> L. Prévost Coyteux, 'On Hysterectomy', *American Gynaecological and Obstetrical Journal* (1897): 1–16.

<sup>86</sup> Nonat, *Traité pratique des maladies de l'utérus*, 613, 845.

Péan with being the most accomplished French surgeon to date with the technique of abdominal hysterectomy.<sup>87</sup> He expressed horror too at the rashness of Kœberlé's extirpations of the ovaries and uterus, with their attendant 75 per cent mortality.<sup>88</sup> Pozzi was one who kept in mind the proportional danger of a surgery relative to the danger of the disease it was supposed to treat, which led him to reserve high-risk surgeries (as were both hysterectomy and myomectomy) only for the specific cases that required it, preferring the surgically less dangerous oophorectomy as a treatment for most symptomatic fibroids.<sup>89</sup> The rationale for that choice was clear: it put women in 'artificial menopause', which resulted in the atrophy of their fibroids and a reduction of haemorrhagic bleeding.<sup>90</sup> But Pozzi was also one of the few surgeons in France who practised the often technically more complex myomectomy favoured by several German gynaecologists, and he provided detailed instructions with precise drawings in his 1890 *Treatise of Gynaecology*, showing how to perform this fertility-conserving surgery which he reserved for young women with benign fibroids.<sup>91</sup> 'It would be useless to undertake a laborious enucleation, instead of an efficient hysterectomy, if a woman were close to menopause or had already passed it', he affirmed.<sup>92</sup> So while older women should not be used as experimental guinea pigs for a dangerous surgery they did not necessarily require (as in Péan's approach), it was legitimate to hysterectomise them if they sought any kind of surgical removal of their fibroids, since myomectomy was a similarly risky procedure. Pozzi also corrected Péan's false nationalist historical attribution of the first deliberate hysterectomy to Kœberlé in 1863, arguing that it was in fact to several English surgeons twenty years earlier that the honour belonged.<sup>93</sup> This kind of corrective recognition of international surgical innovations remained an important feature of Pozzi's interventions into the historical description of gynaecology's recent intercultural emergence, a perspective which he took pains to impress upon medical students at the University of Paris.<sup>94</sup>

Péan clearly had many eminent opponents, which was reflected in his long struggle to acquire the official recognition of the Académie de Médecine (finally accorded in 1887) and to obtain a university post (he never did). It seems likely that his cavalier approach to dangerous and unnecessary surgeries was the primary reason. Even in the 1890s, the renowned Paris-trained southern gynaecologist

<sup>87</sup> Samuel Pozzi, *De la valeur de l'hystérotomie dans le traitement des tumeurs fibreuses de l'utérus*. Thèse (Paris: G. Masson, 1875), 15, 40.

<sup>88</sup> *Ibid.*, 38–39.

<sup>89</sup> Paul Robert Charrier, *Revue critique du Traité de Gynécologie du Docteur Pozzi* (Paris: Asselin & Houzeau, 1890), 7.

<sup>90</sup> Samuel Pozzi & Félix Jayle, *Traité de gynécologie clinique et opératoire* [1890], 4th ed., 2 vols (Paris: Masson et Cie, 1905–1907), vol. 1, 313, 325, 379.

<sup>91</sup> *Ibid.*, 385, 389–424.

<sup>92</sup> *Ibid.*, 424.

<sup>93</sup> *Ibid.*, 425.

<sup>94</sup> Samuel Pozzi, *Progrès et évolution de la gynécologie contemporaine, extrait de la leçon d'ouverture d'un cours libre de gynécologie fait à la Faculté de médecine de Paris* (Paris: P. Dupont, 1887); Pozzi & Jayle, *Traité de gynécologie*, vol. 1, 424–435.

Jacques Amédée Doléris, who had founded the *Archives d'obstétrique et de gynécologie*, later becoming a Radical Party deputy for the Basses-Pyrénées and who was an expert on both uterine fibroids and on medical education for gynaecologists, opposed the generalisation of hysterectomy to patients with benign conditions. In an 1892 article partly entitled 'Too many useless mutilations,' Doléris complained that surgeons were removing healthy reproductive organs from women's bodies, often without a clear diagnosis of their pathology.<sup>95</sup> The popularity of organ removal surgeries for benign conditions such as fibroids reflected an entirely non-therapeutic motive, Doléris said. It was purely for surgeons to gain experience in the technique of hysterectomy and oophorectomy, since surgery was, after all, a trade (*un métier*) in which 'skill is only acquired with practice.' He remarked of their choice of patients that 'subjects are needed to lend themselves to these surgical exercises, and lacking legitimate indications, one is obliged to content oneself with what one finds.' The surgeons who did this found 'no lack of justifications' for doing so, he said.<sup>96</sup> Notably though, Doléris seemed more concerned about women young enough to reproduce being subjected to these surgeries, rather than women around menopause, remarking that 'it is certainly not the moment for doctors to aid depopulation in any way by resorting in all instances to castration.'<sup>97</sup>

From the late 1880s to the 1920s, the chorus of objections to hysterectomy for fibroid treatment became substantial indeed. Numerous French, German, American, and English gynaecologists condemned the new rash enthusiasm for the removal of women's ageing reproductive organs, developing alternative surgical or non-surgical treatments for common conditions, such as fibroids and dysmenorrhea, that were now already being widely treated with hysterectomy or oophorectomy.<sup>98</sup> Some of the new women gynaecologists were among them—Isabelle Gaboriau, whom we met in the Chapter 8, wrote her 1919 Paris thesis on uterine haemorrhages in menopause transition, arguing that these were not even generally pathological or in need of surgery.<sup>99</sup> The surgeon Alfred Boiffin had noted in his 1893 book about fibroids that there had been 'a new evolution of minds' in international gynaecology in relation to them which 'manifested in the

<sup>95</sup> Jacques Amédée Doléris, 'Trop de mutilations inutiles... pas assez de gynécologie conservatrice,' *Nouvelles Archives d'obstétrique et de gynécologie*, 6 (1892):378–384.

<sup>96</sup> *Ibid.*, 383. <sup>97</sup> *Ibid.*, 381.

<sup>98</sup> Georges Apostoli, *Sur une nouvelle application de l'électricité après les accouchements: communication faite à l'Académie de médecine de Paris* (Paris: H. Lauwereyns, 1881); Georges Apostoli, *Sur un nouveau traitement de la métrite chronique et en particulier de l'endométrie par la galvano-caustique chimique intra-utérine* (Paris: O. Doin, 1887); Franklin H. Martin, *Lectures on the Treatment of Fibroid Tumours of the Uterus: Medical, Electrical and Surgical* (Chicago: W. T. Keener, 1897); Paul Morély, *Essai sur l'ouverture des collections annexielles par la voie vaginale* (Paris: G. Steinheil, 1899); Marcel Molk, *Kritik der vaginalen und abdominalen totalen Hysterektomie in Fällen von Fybromyomen*. Dissertation (Strasbourg: J. Singer, 1901); Marius Bonier, *De la myomectomie abdominale dans le traitement des fibromes utérins* (Lyon: Imprimerie Schneider, 1904).

<sup>99</sup> Isabelle Gaboriau, *Contribution à l'étude des métrorragies dites essentielles de la ménopause*. Thèse (Paris: Jouve, 1919).

very marked tendency to directly attack the tumour and to demand a radical cure as treatment', eschewing palliative care via 'castration' (hysterectomy, oophorectomy, or both) in favour of the specific removal of the offending growth while preserving reproductive function where possible.<sup>100</sup> By the 1890s such surgeries were now somewhat less dangerous—thanks largely to the aseptic turn in European surgery, and despite his reservations, Boiffin noted that some surgeons still considered hysterectomy to be 'a veritable method of choice' for many gynaecological pathologies, particularly for women close to menopause for whom the sterilisation effect was less consequential.<sup>101</sup> But other gynaecologists were considerably more resistant to the practice. Roland Pichevin was one who criticised the 'abuses of castration' in Paris medicine in an 1890 book published by the reputable press Steinheil. He claimed that many of the conditions that oophorectomy and hysterectomy were designed to treat, such as inflammation of the fallopian tubes and ovarian cysts, actually healed themselves over time, and that surgeons' insistence that gynaecological disorders had already rendered such women sterile were completely false—he cited a case of one of his own patients who had been prescribed such a surgery and who had refused it, becoming pregnant afterwards.<sup>102</sup> A major 1900 French gynaecology by the physiologist Albert Robin (1847–1928) and the gynaecologist Paul Dalché (1858–c.1930), which was published in multiple editions up to 1922 and used in medical pedagogy at the Paris Faculty throughout this time, sniped repeatedly throughout its 500 pages about the overuse of hysterectomy to treat benign conditions. The authors deemed such surgeries worthless in all but a few cases on the grounds that three-quarters of gynaecological diseases were 'fausses utérines'—disturbances of menstrual function actually deriving from systemic physiological disorders, such as diabetes, undernutrition, digestive disorders, or infectious diseases. They did not actually originate from the uterus, the authors explained, and therefore could not be cured by its removal.<sup>103</sup> The hysterectomy/oophorectomy naysayers and all the many developers of novel myomectomy, cauterisation, electrical, intra-uterine device and chemical therapies were, in a sense, the first wave of the 'minimally invasive' surgery movement which has grown again in Europe, Asia, and North America since the 1990s.<sup>104</sup> Its first iteration represented an important constraining influence on the rapidly expanding international field of ambitious gynaecological surgeons focused on hysterectomy and oophorectomy. Here, France still had

<sup>100</sup> Alfred Boiffin, *Tumeurs fibreuses de l'utérus* (Paris: Rueff et cie., 1893), 146–148.

<sup>101</sup> *Ibid.*, 146.

<sup>102</sup> Roland Pichevin, *Les Abus de la castration chez la femme* (Paris: G. Steinheil, 1890), 43.

<sup>103</sup> Paul Dalché & Albert Robin, *Gynécologie médicale: Traitement des maladies des femmes* (Paris: J. Rueff, 1900), 23, 104, 124, 468, 471.

<sup>104</sup> Sally Frampton & Roger L. Kneebone, 'John Wickham's New Surgery: "Minimally Invasive Therapy", Innovation, and Approaches to Medical Practice in Twentieth-Century Britain', *Social History of Medicine*, 30/3 (2017): 544–566. Doi:10.1093/shm/hkw074; Botros Rizk et al., eds, *Advances in Minimally Invasive Gynecologic Reproductive Surgery* (Boca Raton, Fla/London: CRC Press, 2021).

one last major role to play, in wedding endocrine ovarian treatments to the iatrogenesis of surgical menopause.

### The Internationalism and Caution of Samuel Pozzi

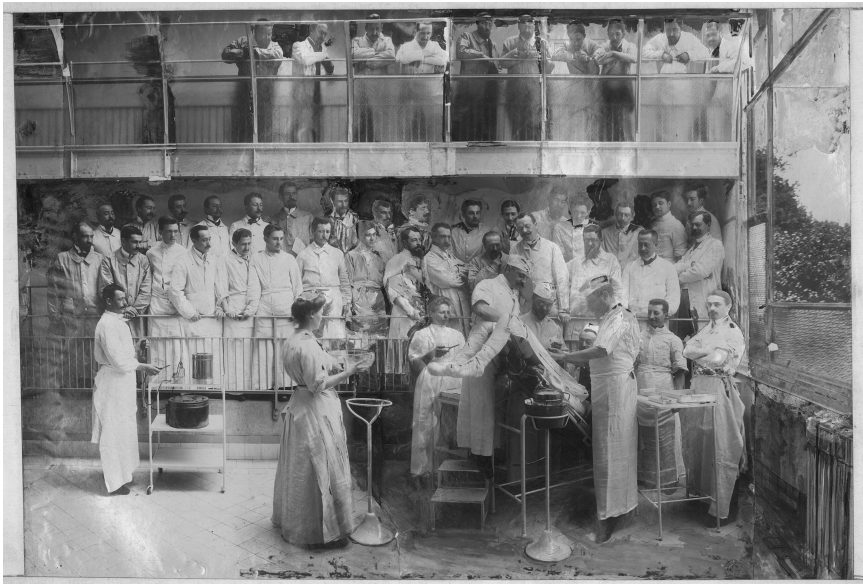
The Paris gynaecologist Samuel Pozzi (Image 10.3), who treated the famous French actress Sarah Bernhardt (1844–1923) for her massive benign ovarian cyst in 1898 (he was initially her lover in the 1860s and remained her lifelong friend), was another leading figure in controversial French experiments with hysterectomy and oophorectomy in the 1880s and 1890s. He was known for implementing the new antiseptic surgery procedures of the English surgeon Joseph Lister (whom he visited), with resulting dramatic improvements in patient survival. Pozzi was clinical professor of gynaecology at the University of Paris, a member of the Académie de Médecine, and in 1898 an elected senator of the Dordogne, of which



**Image 10.3** Walery (Stanisław Julian Ignacy Ostroróg), photograph of Samuel Pozzi, c.1900. Image ref.: CIPH0046. Courtesy of the Bibliothèque Nationale de France.



he was a native (Bergerac). Like Sarah Bernhardt, he was an ardent Dreyfusard.<sup>105</sup> He was a prolific scholar, and authored with his intern Félix Jayle the 1890 two-volume textbook of gynaecological surgery that was reprinted in four French editions up to 1907, translated into English (1892 and 1899), German (1892), Italian (1895), Russian (1897), Polish (1907), and widely used in both French and international medical pedagogy until around 1930.<sup>106</sup> He, more than any other French surgeon, was responsible for the massive leap in the development of abdominal surgery technique using aseptic protocols, which increased patient survival in laparotomy and other major gynaecological procedures by 300 per cent (Image 10.4). In a tragic irony, he himself died from abdominal injury when a mentally ill ex-patient shot him multiple times in his Paris clinical rooms in 1918. His assistant and co-author Félix Jayle was one of the surgeons who tried to save his life in the emergency operation in which the multiple intestinal perforations of the bullets were masterfully repaired, but Pozzi nonetheless died due to massive internal haemorrhaging.<sup>107</sup>



**Image 10.4** Samuel Pozzi photographed performing laparotomy surgery in teaching theatre, c.1890s. Image ref.: CIPD0004. Courtesy of the Bibliothèque Interuniversitaire de Santé.

<sup>105</sup> Claude Vanderpooten, *Samuel Pozzi, chirurgien et ami des femmes* (Paris: Éditions In Fine, 1992); De Costa & Miller, *The Diva and Doctor God*, 106.

<sup>106</sup> Samuel Pozzi & Félix Jayle, *Traité de gynécologie clinique et opératoire* [1890], 4th ed., 2 vols (Paris: Masson et C<sup>ie</sup>, 1905–1907).

<sup>107</sup> De Costa & Miller, *The Diva and Doctor God*, 244–247.

Pozzi was certainly not alone in the surgical revolution that he led. He travelled globally throughout his successful career as a general surgeon, specialist gynaecologist, and medical professor at the Paris faculty, visiting the most accomplished centres of surgical excellence in England, the USA, and South America to exchange knowledge of novel procedures and emerging science.<sup>108</sup> Without the enormous improvements in surgical practices that occurred during this period, the ensuing story of the surgical-endocrine nexus treatment for older women would never have unfolded. These were the early beginnings of the global development of new twentieth-century ways of medicalising menopause with hysterectomy and hormone replacement therapy, which French doctors, like Pozzi and his students, initiated, though they were not to remain for long at its helm.

Pozzi's entrance into Paris medicine in the 1870s formed part of a significant shift towards more rigorous medical ethics in women's health, more sophisticated surgical technique, and more international collaboration and knowledge exchange in relation to global gynaecology. He completed two theses as qualifications for his surgical career, the first for his *licence* in 1873 on the infectious fistulas that formed in some patients after abdominal surgeries, and the second for his Paris faculty professorial *agrégation* in 1875 on the value of hysterectomy in the treatment of uterine fibroids.<sup>109</sup> Pozzi, unlike Péan, was deeply afraid of the often-deadly surgery that was late nineteenth-century laparotomic hysterectomy, and he found Péan's and others' claims to surgical triumph to be utterly appalling when the general mortality rate for even the much less dangerous oophorectomy still sat at 34 per cent.<sup>110</sup> Fibroid tumours alone were not a sufficient cause for conducting hysterectomy, he said, while admitting that some of his own and others' attempts to remove just the tumour sometimes became hysterectomies due to surgical complications.<sup>111</sup> He said that fibroids often grew in a triphasic pattern, beginning as asymptomatic in their initial phase of genesis, becoming potentially symptomatic in the second phase, followed by a diminution of volume and symptomatology in the phase after menopause. But at the end of the second phase, he said, there was often a 'last ascending oscillation in the development of the tumour', in the years approaching menopause.<sup>112</sup> He cited a case example of this, a patient of Paul Broca's treated at the Pitié hospital around 1850: a woman, aged 50 at the time, who had several large fibroids that had undergone a growth surge around the approach of her final menstruation. Some time later these tumours spontaneously diminished, and she never suffered any symptoms, either when they were large or after they shrank. She had been followed up and was now

<sup>108</sup> *Ibid.*, 98–99, 105.

<sup>109</sup> Samuel Pozzi, *Étude sur les fistules de l'espace pelvi-rectal supérieur, ou fistules pelvi-rectales supérieures*. Thèse (Paris: G. Masson, 1873); Samuel Pozzi, *De la valeur de l'hystérotomie dans le traitement des tumeurs fibreuses de l'utérus*. Thèse (Paris: G. Masson, 1875).

<sup>110</sup> Pozzi, *De la valeur de l'hystérotomie*, 40–43.

<sup>111</sup> *Ibid.*, 29, 49. <sup>112</sup> *Ibid.*, 19.

(in 1875) 75 years old, active, healthy, living independently, and still doing her own housework.<sup>113</sup> Pozzi certainly always treated some fibroids with hysterectomy, particularly in older women, if he deemed them too risky to remove selectively due to greater blood loss, or the longer surgical time required—both factors that increased the risk of death. But over his career he appears to have increasingly favoured alternative treatments - both myomectomy and oophorectomy, or even partial ovarian ablation, wherever possible.<sup>114</sup> Haemorrhagic bleeding, though alarming, he said, was never lethal, and should not be taken as justification for risking women's lives in hysterectomy, which he said was a common error of other surgeons, particularly Péan.<sup>115</sup> Fibroids could affect intestinal and bladder function too, Pozzi acknowledged, but he did not consider this cause for surgery either, unless there was very serious bowel obstruction which put women at risk of peritonitis.<sup>116</sup>

Pozzi and Jayle also affirmed the ages from 40 to 50 years as the peak time of susceptibility to uterine cancer, which they observed to be the most common form of cancer in women, followed by breast cancer, drawing on the English statistics of J. Y. Simpson from 1847 to 1861.<sup>117</sup> They followed the English gynaecologists David Berry Hart and Alexander Hugh Freeland Barbour in the view that women were more than twice as prone to cancer as men up to the age of 50, on account of the 'sexual organs' being particularly susceptible to it during the reproductive years, based on Simpson's data which recorded 87,348 fatal carcinomas of which 61,715 were among women, accounting for 2.2 per cent of all female deaths.<sup>118</sup> As Ornella Moscucci notes, this gendered belief about cancer, which had been argued by the Irish physician Walter Hayle Walshe in 1846, persisted in medicine from the mid-nineteenth century until the 1920s, when new Swiss and Norwegian statistical data indicated that cancer prevalence was actually similar both in men and women, while in the 1930s prostate cancer prevalence in men was found in Britain to be 365 per cent higher than had previously been realised.<sup>119</sup> Nonetheless, public health campaigns both in England and France continued to focus on women's cancers far more than men's up until the 1950s, including the recommendation of prophylactic hysterectomy and oophorectomy, based on the old conceptual layer of medical ideas about women's greater morbidity (despite their longer life expectancy) due to the supposedly morbid nature of their reproductive organs.<sup>120</sup>

<sup>113</sup> Ibid., 19.

<sup>114</sup> Samuel Pozzi, *Relevé statistique des opérations pratiquées dans le service de gynécologie de l'hôpital Broca* (Paris: Masson, 1899), 11–23.

<sup>115</sup> Pozzi, *De la valeur de l'hystérotomie*, 14. <sup>116</sup> Ibid., 14.

<sup>117</sup> Pozzi & Jayle, *Traité de gynécologie*, vol. 1, 515.

<sup>118</sup> Ibid., 515–516; Berry Hart & Freeland Barbour, *Manual of Gynecology*, 436.

<sup>119</sup> Walter Hayle Walshe, *The Nature and Treatment of Cancer* (London: Taylor & Walton, 1846), 152–153; Moscucci, *The Science of Woman*, 8–9, 36–37; see also Ilana Löwy, *Preventive Strikes: Women, Precancer, and Prophylactic Surgery* (Baltimore: Johns Hopkins University Press, 2010), 10–13.

<sup>120</sup> Moscucci, *The Science of Woman*, 2–3.

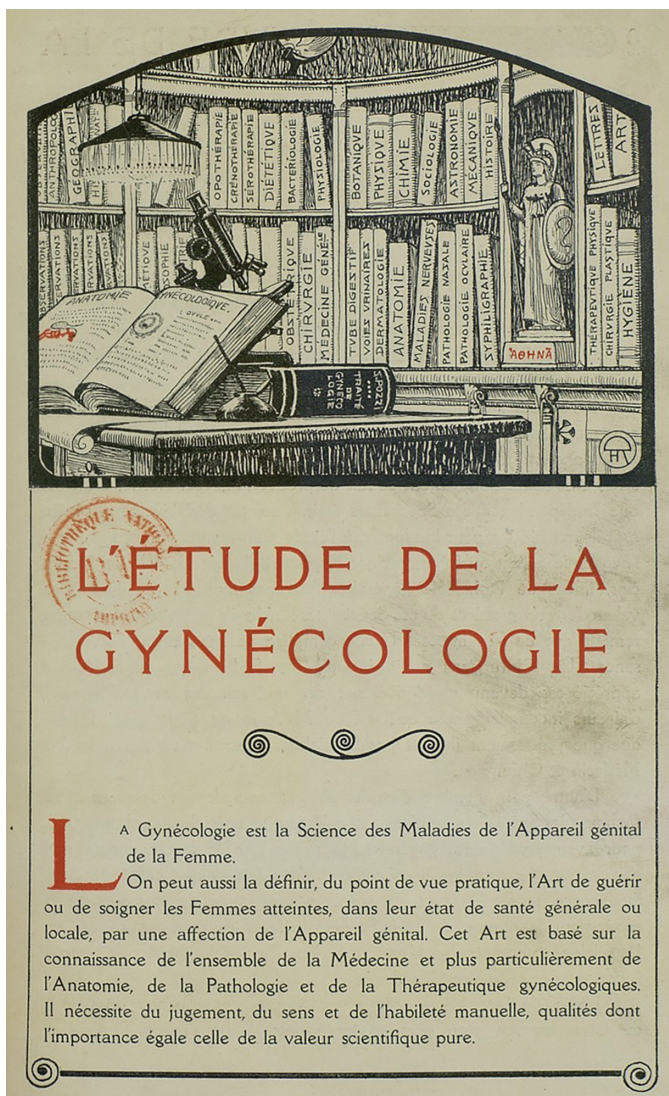


Image 10.5 Félix Jayle Frontispiece of textbook, *Gynécologie*, 1918. Courtesy of the Bibliothèque Nationale de France.

In Pozzi's 1899 statistical account of all the operations he had performed and overseen in the women's diseases wing of the Broca hospital between 1890 and 1899, it is clear that he was favouring surgeries of the ovary (either unilateral or bilateral oophorectomy, or partial resection of the ovary) over extirpation of the uterus in the treatment of uterine fibroids, ovarian cysts, and inflammations of the fallopian tubes. He was able to show 100 per cent survival of his patients using

these methods, followed up for one year after surgery. He also documented recurrences in patients whose ovaries had been extirpated due to malignant tumours—clearly indicating the need for adjunct therapies in the case of these dangerous cancers that almost always killed women.<sup>121</sup> Nonetheless, the cancer-focused prophylactic removal of healthy women's sexual organs, described in the excellent studies of both Moscucci and Löwy, does not appear to have been the only driver of hysterectomy and oophorectomy in women approaching menopause in France between 1890 and 1920.<sup>122</sup> As we have seen, however, these organs' propensity to develop cancer with ageing was indirectly evoked by surgeons as part of their complex web of justifications for extirpating the organs of women in their forties rather than simply removing the benign tumours that grew on them, as some, like Pozzi, were prepared to do for younger women.

In his early work, Pozzi considered myomectomy with conservation of the uterus and ovaries to be the best treatment for uterine fibroids, but worried about the practice of morcellating them, which caused much greater blood loss, though he noted the advantage of the technique for reducing incision size, which was another important factor in patient survival at this time.<sup>123</sup> Conserving the uterus was something worth considering, he said: 'one can always hope... that the patient will escape the incidents that menace her and will be able to attain menopause.' The conservative approach, he noted, would invariably leave some women to die in their forties or fifties from the rare cancerous forms of these common tumours, but this would still be a much smaller number than those dying from hysterectomy, given the 64 per cent mortality risk he identified for it in the 1870s.<sup>124</sup> There was rarely any long-term follow-up of those patients who had survived the procedure either, he noted.<sup>125</sup> On the other hand, if a tumour had rapidly grown in a woman who was already past menopause, causing haemorrhages long after the final cessation of the menses, he considered hysterectomy with oophorectomy to be absolutely 'authorised', given that such a presentation very likely indicated an aggressive malignant cancer.<sup>126</sup>

Pozzi, even early in his career, pointed to the high number of deaths from post-surgical fever indicative of 'septicaemia' as the figure most likely to be easily improvable through the application of aseptic methods, for which he later became a major advocate, transforming Paris surgical practices dramatically.<sup>127</sup> In his 1899 *Relevé statistique* he displayed his own and other surgeons' successes and failures over time transparently and in great detail. He thereby showed the difference in patient survival made by the massive upgrading of surgical equipment,

<sup>121</sup> Pozzi, *Relevé statistique*, 6.

<sup>122</sup> It did become a more common practice, however, towards the end of the 1920s, e.g. Jean-Eugène Proust, *Influence de la ménopause sur le cancer du sein et castration ovarienne thérapeutique par les rayons X*. Thèse (Bordeaux: Impr. de l'Académie et des Facultés, 1929).

<sup>123</sup> Pozzi, *De la valeur de l'hystérotomie*, 30.

<sup>124</sup> *Ibid.*, 49.

<sup>125</sup> *Ibid.*, 21.

<sup>126</sup> *Ibid.*, 50.

<sup>127</sup> *Ibid.*, 44–46.

accommodation, and procedure that he led at the Broca hospital in the last decade of the nineteenth century, with much improved outcomes in the patient datasets from the final three years of the century.<sup>128</sup> But Pozzi is primarily of interest to us here because he helped to train some of the most important figures in French medical research on the effects of hysterectomy, oophorectomy, and the use of ovarian ophotherapy in both surgical and in natural menopause: Félix Jayle, Paul Charrier, Maurice Lissac, and others. He was thus a crucial vector for the entanglement of surgical and endocrinological technologies around the treatment of menopause and of older women, which heralded the end of French dominance over the topic by sparking a whole new era of global pharmaceutical commercial interest in women's ageing. Notably too, Pozzi's concern about the excessive mortality entailed in hysterectomy when used for benign tumours (except for the most technically simple ones) meant that he often turned instead to the less risky oophorectomy, which had always entailed roughly half the mortality of hysterectomy, and which he was able to perfect to a reliably survivable standard (100%) in the treatment of benign conditions by the end of his time at the Broca hospital.<sup>129</sup>

This surgery, too, even though it preserved the uterus, mimicked many of the effects of menopause, which was precisely Pozzi and Jayle's rationale for performing it, since fibroids were known to shrink after natural menopause:

Clinical medicine has long understood that the cessation of the sexual life of woman quite often brings a remarkable sedation of the incidents caused by fibroid bodies... Hence came the idea to hasten the appearance of this favourable period by provoking an *artificial menopause* through ablation of the ovaries.<sup>130</sup>

Notably, the idea of treating fibroids with surgical 'castration' (oophorectomy) to produce a 'premature menopause' was precisely the thesis topic of the Bordeaux doctoral candidate Jean-Albert Pascal in 1887.<sup>131</sup> Pozzi and Jayle did not perhaps invent the idea, but they certainly helped to disseminate it widely, contributing to the iatrogenic creation of a new population of women placed surgically in menopause. They were also the first group of clinicians to observe and document the symptoms suffered by many of the women thus treated, but not before their approach of inducing artificial menopause was followed by countless other surgeons.<sup>132</sup> To their credit, these two gynaecologists accurately recognised that this

<sup>128</sup> Pozzi, *Relevé statistique*, 3.      <sup>129</sup> *Ibid.*, 21–23.

<sup>130</sup> Pozzi & Jayle, *Traité de gynécologie*, vol. 1, 379, emphasis in original.

<sup>131</sup> Jean-Albert Pascal, *La Ménopause prématurée par la castration ovarienne: Contribution à l'étude du traitement des fibromes utérins*. Thèse (Bordeaux: Veuve Cadoret, 1887).

<sup>132</sup> Sébastien Le Moniet, *Hystérectomie abdominale totale et hystérectomie abdomino-vaginale pour fibromes de l'utérus* (Paris: G. Steinheil, 1894); Edgar Garceau, *Vaginal Hysterectomy as Done in France*

was a matter requiring its own research investigation—a task which Félix Jayle initiated at the Broca hospital, as we consider in the final section of this chapter.<sup>133</sup>

In 1897, a Paris doctoral thesis written by Émile Canu (who said he had previously been a primary school teacher in the Saint-Denis quarter of Paris for ten years before studying medicine) heavily criticised the widespread use in France of oophorectomy and hysterectomy on nationalist pro-natal grounds, claiming that the nation's negative population growth of the late nineteenth century was a direct consequence of the fad for castration surgeries in gynaecology since the 1870s; but he also emphasised the widespread practices of lack of patient information or consent in such surgeries.<sup>134</sup> Much of the thesis was a series of case observations based on a survey that Canu had posted (along with a stamped, self-addressed envelope) to women who had received such surgeries in the Paris hospital system between 1892 and 1896. It appears he had access to their addresses via a Dr Bec (no doubt Édouard Le Bec (1851–1941)) who performed the surgeries, as well as through several individuals who assisted him in the Office of General Statistics at the Ministry of Commerce.<sup>135</sup> But he also said that he had used his neighbourhood contacts as a schoolteacher to speak personally with women who had had such surgeries.<sup>136</sup> The survey, like all checklist questionnaires, suffered from being highly suggestive to the patients of symptoms they could expect to have as a result of their surgery, and so should not be straightforwardly taken as indicative of patient experience. Canu was primarily concerned about women of childbearing age being deprived of their conceptive capacities, rather than about women close to menopause, although he also published the responses he received from older women. Clearly he was a fan of the non-surgical, electrical treatment for fibroids that was in vogue at this time as an alternative to hysterectomy/oophorectomy, pioneered by the Paris gynaecologist Georges Apostoli (1847–1900).<sup>137</sup>

But several things are noteworthy about the cases of the women who responded to Canu's inquiries, both in answering the checklist questions but also, in some cases, providing credible narrative accounts of their treatment. Many of the forty-two women whose cases Canu described said that they had not been told what the surgery was that they would be given until after they had received it,<sup>138</sup> several

(New York: William Wood & Co, 1895); Constantin Angelesco, *Hystérectomie abdominale totale pour tumeurs fibreuses de l'utérus* (Paris: Georges Carré, 1897).

<sup>133</sup> Félix Jayle, *Opothérapie ovarienne dans la ménopause artificielle post-opératoire et la ménopause naturelle* (Paris: Masson, 1898).

<sup>134</sup> Étienne Canu, *Résultats thérapeutiques de la castration chez la femme: Conséquences sociales et abus de cette opération* (Paris: Ollier-Henry, 1897), 126–133.

<sup>135</sup> *Ibid.*, 7. <sup>136</sup> *Ibid.*, 14.

<sup>137</sup> *Ibid.*, 121, 153; Apostoli, *Sur un nouveau traitement de la métrite chronique*; Dr Delétang, *Du traitement des fibromes utérins par la méthode d'Apostoli* (Paris: O. Doin, 1889).

<sup>138</sup> Canu, *Résultats thérapeutiques de la castration chez la femme*, 28 (Observation 6), 33 (Observation 8), 35 (Observation 9), 39 (Observation 10), 41 (Observation 12), 45 (Observation 14), 48 (Observation 15), 52 (Observation 17), 65 (Observation 23), 76 (Observation 29), 83 (Observation 33), 94 (Observation 39).

said that only their husband's consent had been obtained but not theirs,<sup>139</sup> while a substantial number said they had indeed been told.<sup>140</sup> Canu clearly wanted to portray the surgeons as reckless and irresponsible, but the claim that they were often not informing their patients that their reproductive organs would be removed, with both a sterilising effect and with potential consequences for their subsequent health, is consistent with the obfuscation of patient consent found in the writing of gynaecological surgeons themselves, particularly Péan. However, many of the cases referred to surgeries received at the Broca hospital during the 1890s, when Samuel Pozzi oversaw the gynaecology wing there and when Félix Jayle was working there too. One woman, 'C', aged 30, who had not been told that her surgery would sterilise her, said that she was delighted when she found out, since she did not want to have any more children (Observation 5).<sup>141</sup> But others were not so lucky. One of those, 'G', a woman of 51 years (Observation 20), who was not told what her surgery would be, also expressed reluctance to blame her surgeon, not wishing to bring disrepute to him, despite suffering severe new symptoms since her hysterectomy with oophorectomy and regretting having had the surgery.<sup>142</sup> Another woman, 'Mme. R', aged 40, who named the surgeon who had hysterectomised her in 1892 as a Dr Terrillon at the Salpêtrière hospital, said she was told that she would die unless she had 'the operation' but was not informed of what the operation would consist, even after asking. She said that she had become completely debilitated since the surgery, suffering a wide variety of symptoms: sleeping only three hours a night, memory loss, irascibility, prematurely reaching 'old age'; she had become so 'useless' that she and her husband had been forced to abandon their family business.<sup>143</sup> 'Madame R', aged 52 (Observation 27), who was ovariectomised by a renowned surgeon at the Broca hospital (whom Canu indicated simply as 'X'), said that she was not told what her surgery was until afterwards when she asked what the word 'ovariotomie' meant, after seeing it written on her patient card.<sup>144</sup> Another woman aged 52 from Fribourg in Switzerland, 'Mme. X', was diagnosed with a fibroid in 1892, though she had no symptoms relating to it. She was told she needed a surgery to remove it but was not informed what surgery she would be given; she guessed that they had removed her uterus. Before the surgery her only symptom was heavy menstruation and some mild hot flushes, but three days after the surgery she suffered a 'congestion of the brain', and had since experienced daily headaches, palpitations, and a massive loss of strength and memory function, 'conjugal relations are impossible', and her 'general state [was] worse than before'. She said that she had paid 3,500 francs for the operation (equivalent to just over one kilogram of gold, and more than many

<sup>139</sup> Ibid., 17 (Observation 1), 18 (Observation 2), 25 (Observation 5).

<sup>140</sup> Ibid., 40 (Observation 11), 50 (Observation 16), 55 (Observation 18), 70 (Observation 26), 77 (Observation 30).

<sup>141</sup> Ibid., 25.

<sup>142</sup> Ibid., 58.

<sup>143</sup> Ibid., 69–70.

<sup>144</sup> Ibid., 74.



doctors earned in a month), and afterwards also required 600 francs per month for ongoing medical treatments that she did not need before the surgery.<sup>145</sup> Her operation took place in the rue de Ranelagh, in the 16th arrondissement, a rich area.

The French medical controversy around the practice of hysterectomising and ovariectomising menopausal women did not end here. In the first decade of the twentieth century, doctoral theses now picked up the debate about the effect of menopause on uterine fibroids and the necessity or abuse of hysterectomy and oophorectomy. The first, by the Montpellier candidate Adolphe Charreire in 1907, provided a balanced account of the opposing arguments, concluding that 'since they can decrease in size on the approach of age 50, myomas are not per se an indication for [surgical] intervention.'<sup>146</sup> But he also considered the new histological analyses of tumour tissues which appeared to show that both the rare cancerous form of fibroid and the common benign form shared more similar cellular features than had previously been identified microscopically.<sup>147</sup> Much of his thesis focused on the question of whether an existing benign tumour could transform into a sarcoma as a result of menopause, which Charreire admitted was possible in a small number of cases. While it was clear that menopause brought atrophy of fibroids, it could also rarely, in some cases, see alteration of the tumour into a malignant form characterised by a sudden increase in its rate of growth.<sup>148</sup> He noted a wide variability in surgeons' reports about the ubiquity of such cancerous fibroids,<sup>149</sup> which no doubt reflected the speculative nature of much diagnosis, and the important divide between ethical and careful surgeons versus those who overemphasised the dangerousness of fibroids generally in order to justify their removal with high-risk hysterectomy in all women in their forties. Charreire declared himself opposed to such recklessness: 'the womb, though not an indispensable organ, should be conserved as long as possible, in the absence, of course, of any harmful changes, even in women who have 'passed the age of making it operate'.<sup>150</sup> He discussed several of the alternative treatments for fibroids and the symptoms that they caused, such as curettage of the uterus, ligation of the uterine arteries, electrical treatments, and the use of oophorectomy, the less dangerous surgery favoured both by the German gynaecologist Alfred Hegar and by Samuel Pozzi.<sup>151</sup> But notably he made no mention of the other alternative surgery

<sup>145</sup> Ibid., 171–173; Rodney Edvinsson, *Historical Currency Converter* (test version 1.0). Historicalstatistics.org: <<https://www.historicalstatistics.org/Currencyconverter.html>> (viewed 30 November 2021). Highly successful doctors' salaries in mid-nineteenth-century France ranged from 4,000 to 7,000 francs per month, but were more often as low as 2,000 francs. See Matthew Ramsey, *Professional and Popular Medicine in France, 1779–1830* (Cambridge: Cambridge University Press, 1988), 113.

<sup>146</sup> Adolphe Charreire, *Myomes et ménopause, atrophie, dégénérescences malignes, indications*. Thèse (Montpellier: G. Firmin, Montane & Sicardi, 1907), 45.

<sup>147</sup> Ibid., 18.

<sup>148</sup> Ibid., 12–15.

<sup>149</sup> Ibid., 19–26.

<sup>150</sup> Ibid., 47–48.

<sup>151</sup> Ibid., 46–47.

available in this time, myomectomy (removal of just the tumour and no organs), which remained so rare as to be very often ignored in French gynaecological works (apart from Pozzi's).

The Lyon surgical candidate Émile Guillaume, on the other hand, was one who took sides with the Péan current of surgical hubris, restating the importance of hysterectomy in the treatment of benign conditions such as fibroids, despite the many deaths this continued to cause, and denigrating the lower-risk use of oophorectomy or partial ovarian ablation, such as Pozzi practised, to cure women of their menstrual disorders by inducing surgical menopause.<sup>152</sup> Guillaume's thesis centred on hysterectomy for any woman over the age of 40 presenting with a uterine fibroid (*myome utérin*), extending Péan's argument that these tumours' benignity had been much exaggerated. His thesis too was specifically about the relationship between menopause and fibroid growths: he strongly challenged the common medical understanding that such tumours stopped growing and even tended to shrink, along with the atrophy of the uterus itself, after the final cessation of menses. He said that on the contrary, fibroids were a disease of menopause itself, and occurred in 40 per cent of women by the age of 50 years.<sup>153</sup> While menopause often brought relief from the haemorrhagic bleeding that fibroids sometimes caused, many women assumed they were cured thereafter, whereas their tumours had merely entered a new phase, continuing 'to evolve insidiously' to reappear 'at a more advanced age' as malignant cancers.<sup>154</sup> Guillaume argued that fibroids of all kinds in fact had the potential to become malignant, and that it was 'false to affirm that [they] always regress around menopause'.<sup>155</sup> It was a peculiar kind of malignancy, he suggested, which did not metastasise and instead remained local. He would not go so far as the Brussels surgeon Jacobs, who in 1906 had claimed that fibroids *always* became malignant in menopause, but he insisted nonetheless that menopause indeed had a dangerous impact on their evolution, and that deadly forms were more common than most gynaecologists realised.<sup>156</sup>

Hysterectomy was the treatment of choice to cure fibroids, which Guillaume claimed was now 'accepted everywhere'.<sup>157</sup> He was particularly keen on what he called 'the American procedure' of 'subtotal hysterectomy' practised by the Lyon surgeon Henri-Alphonse Albertin (1860–1939), referring to removal of both the uterus and ovaries via abdominal laparotomy, severing the uterus above the

<sup>152</sup> Émile Guillaume, *Le Myome utérin à la ménopause* (Lyon: J. Prudhomme, 1910), 14.

<sup>153</sup> *Ibid.*, 9.

<sup>154</sup> *Ibid.*, 34. The topic also of another Paris thesis around this same time: François Frédéric Cocheret, *De la valeur des métrorragies après la ménopause comme signe de cancer de l'utérus et comme indication de l'hystérectomie totale abdominale*. Thèse (Paris: H. Jouve, 1909).

<sup>155</sup> Guillaume, *Le Myome utérin à la ménopause*, 17–18.

<sup>156</sup> *Ibid.*, 21; C. Jacobs, 'Fibrome utérin: Quelques observations cliniques tirées de 633 opérations abdominales', *Bulletin de la Société Belge de Gynécologie et Obstétrique*, 8 (1905–1906): 73–79.

<sup>157</sup> Guillaume, *Le Myome utérin à la ménopause*, 12.

cervix (while the term ‘total hysterectomy’ referred to incision below and including the cervix, which was most often done via a vaginal route).<sup>158</sup> Vaginal hysterectomy was less common, though highly regarded by gynaecologists, he said, with those still performing it doing so as an expression of their ‘personality’.<sup>159</sup> Common pharmacological remedies prescribed for fibroids such as potassium iodide, calcium chloride, cannabis tincture, hydrastis, and ergot were all useless.<sup>160</sup> And while electrical treatments could bring temporary relief of pain and haemorrhages, they could not cure fibroids, and sometimes even made them gangrenous. The proponents of such treatments, he said, had campaigned on the idea that they offered an alternative to the drastic cure of surgery, chanting ‘No more oophorectomies’, but their results did not live up to their promise.<sup>161</sup> He said the alternative surgery of myomectomy (removal of just the fibroid, leaving all the organs in place) had been definitively discredited. Its principal advantage was that it preserved fertility, he said, but most women did not conceive after the surgery anyway, and many simply grew new fibroids in the place of those that had been removed. The operation was also more prone to complications.<sup>162</sup> He said that women often came asking for a myomectomy but were instead given hysterectomy, citing a case of this happening to a patient treated by Alphonse Albertin when he was practising in Paris—again confirming Canu’s account that the question of women’s consent for such surgeries was often ignored.<sup>163</sup>

While Guillaume acknowledged that many of the most symptomatic cases of fibroids were found in patients who had suffered from them since early in their thirties, nonetheless he said that ‘at the approach of menopause, the genital organs of woman are the seat of an intense congestion’, resulting in exacerbation of any existing gynaecological pathologies.<sup>164</sup> The main symptoms he described were heavy menstruation with intermittent haemorrhages resulting in anaemia, as well as intestinal and bladder problems caused by pressure from the growing tumour. Most of the women who sought surgery, he said, were those suffering virtually constant haemorrhaging. He acknowledged that haemorrhagic bleeding had never actually killed anyone, but insisted that it could do so potentially because the low blood volume it created in women might cause venous thrombosis and cardiac problems in menopause. He claimed that Albertin had followed ‘several’ women who ‘had obstinately refused the intervention’ (hysterectomy) and they all succumbed to fatal venous or cardiac diseases around the time of menopause.<sup>165</sup> Any uterine pathology could cause heart troubles, he said, via sympathy of the uterus with the hypogastric plexus, pointing to Pozzi’s observations of palpitations as a frequent symptom of gynaecological lesions.<sup>166</sup> By way of example he cited the case of a 40-year-old woman described by the Paris surgeon Violet at a meeting of the Société des Sciences Médicales in 1905. She was diagnosed with a

<sup>158</sup> *Ibid.*, 12.<sup>159</sup> *Ibid.*, 40.<sup>160</sup> *Ibid.*, 36.<sup>161</sup> *Ibid.*, 37.<sup>162</sup> *Ibid.*, 39.<sup>163</sup> *Ibid.*, 41.<sup>164</sup> *Ibid.*, 22.<sup>165</sup> *Ibid.*, 24–25.<sup>166</sup> *Ibid.*, 31.

painful fibroid which caused her belly to swell and led to more frequent urination, but these symptoms ‘in the eyes of the patient were not very worrisome’. Then the fibroid grew and when a surgeon examined her heart, he found it beating ‘frantically’ (‘affolé’)—rapidly and irregularly, with intermittent palpitations. After calming down, he explained, she ‘resigned herself’ to the surgery that she had previously refused. ‘This observation shows us evidently just how far one can push surgical audacity,’ Guillaume said, though it was regrettable that so many sufferers waited so long for menopause to cure their fibroids instead of entrusting themselves to a surgeon.<sup>167</sup>

While Guillaume acknowledged that the average age of the final cessation of menses in French women in this time was generally agreed to be 48 (ranging from 46 to 52), he appears to have forgotten this throughout his study, referring also in his thesis to ‘the age of menopause (40–50 years)’.<sup>168</sup> His slippage from the average age based on the range of 46–52 years to a whole decade beginning six years younger than this had important implications for the kinds of gynaecological conditions that could now be ascribed to ‘menopause’, helping to justify the expansion of hysterectomy in a context where it remained a controversial procedure. Guillaume even said that none of his own patients in the age range of 40–50 years had yet reached menopause (in the sense of having ceased menstruating), nor indeed had several aged between 50 and 55 years; nonetheless, his argument about the close relationship between ‘menopause’ and fibroids focused on the group aged 40–50, who he said were the most afflicted.<sup>169</sup> This was only made to make sense by construing the moment of menopause as lasting an entire decade or more, defined by the very gynaecological symptoms that were being blamed on it, rather than by the final cessation of menses itself. Medical scholarship on fibroid tumours of the uterus had flourished in multiple European scientific contexts in the last decades of the nineteenth century. They were widely understood to be a kind of benign growth that closely followed women’s reproductive lifespan, never appearing before the age of 20, frequently emerging during pregnancy, and rarely seen after the age of 50.<sup>170</sup> So if surgeons wanted to make the case that fibroids were a disease of menopause that required surgical treatment with hysterectomy—justifying the sterilisation effect as of no consequence to women

<sup>167</sup> Ibid., 32.

<sup>168</sup> Ibid., 73.

<sup>169</sup> Ibid., 33.

<sup>170</sup> Léon Brachet, *Myôme utérin délogé par le travail de l'accouchement et opéré avec succès* (Paris: J. B. Baillière et fils, 1870); William Netzel, *Opération césarienne rendue nécessaire par un myome incarcéré dans le petit bassin*, trans. H. Cazin (Paris: V. A. Delahaye, 1876); Adrien Phelippeaux, *Histoire clinique d'un fibrome utérin du poids de 150 grammes, opération et guérison: Considérations sur quelques faits de gynécologie. Discussion. Commentaires* (Paris: V. Adrien Delahaye, 1878); H. Chassigny, *Régression de myome utérin* (Lyon: Association typographique, 1883); Joseph Fabricius, *Über Myome und Fibrome des Uterus und deren Einfluss auf die Umgebung* (Vienna/Leipzig: W. Braumüller, 1895); Franklin H. Martin, *Lectures on the Treatment of Fibroid Tumours*; C. J. Bond, ‘On the Results of 50 Cases of Abdominal Hysterectomy for Fibroid Disease of the Uterus: With Remarks on the After-History of the Patients and on the Artificial Menopause’, *The Lancet*, 161/4142 (1903): 162–167.

in their forties, since they were no longer fertile anyway—then some serious revision of the definition of menopause was needed. Even older women might have been made a target in this way too, except that it was harder to find patients suffering symptomatic fibroids who were older than their early fifties, and the surgical survival rate declined in a linear fashion with age. No doubt some women in their forties, particularly those with severe symptoms, were keen to have their tumours surgically removed once knowledge of this possibility became known. But given that most French surgeons only offered hysterectomy with oophorectomy as a surgical solution, elaborate justification was required for the view of the uterus and ovaries as inherently pathological in women in their forties, underpinning the practice of their wholesale removal.

Péan too in 1893 had criticised the ‘supposed benignity of uterine fibroids’ and the ‘illusory role of menopause’ in shrinking them, and Guillaume leaned heavily on his account, pointing to his surgical statistics of 100 hysterectomies conducted on women in their forties, compared to 70 such surgeries done on women in their thirties, 30 on women in their twenties, and only 10 on women over the age of 60.<sup>171</sup> Guillaume discussed Péan’s data alongside datasets from several other surgeons which also privileged women in their forties for hysterectomy. Notably, the one decade missing from most of their statistics was the group aged 50–60 years which—assuming a cessation of menses at an average age of 48—would be the relevant group for observing whether or not fibroid atrophy had occurred following the end of menstruation. Only one dataset, that of the British surgeon Francis William Nicol Haultain (1861–1921), included a group aged specifically between 50 and 60 years—eight cases, compared to the 80 Haultain had treated who were in their forties, and only one of the eight women in their fifties had even in fact ceased menstruating.<sup>172</sup> In fact, out of all of the many hundreds of hysterectomies performed by the four surgeons Guillaume cited, only this one patient had actually reached her final menstruation.<sup>173</sup> These numbers were hardly compelling as evidence of the role of the final cessation of menses in causing or exacerbating fibroids, but Guillaume seemed to think they were. Perhaps he justified this both by assuming that fibroid shrinkage, were it real, should occur abruptly sometime in the ten or so years *before* the final cessation of menses, and also by defining ‘menopause’ in this remarkably vague way with reference to an entire decade or more. In fact, the most obvious connection between menopause and fibroids appearing at this moment in medical history was that women with these tumours were now vulnerable to being put into surgical menopause as a result of their treatments—a far more abrupt and symptomatic transition to post-fertile life than any woman ageing without surgery. Guillaume finished his thesis with the

<sup>171</sup> Guillaume, *Le Myome utérin à la ménopause*, 50.

<sup>172</sup> *Ibid.*, 51. <sup>173</sup> *Ibid.*, 51.



**Image 10.6** Renard, two women commenting on a young ambitious doctor, c.1890. The dialogue reads with one woman beginning, 'I know him, darling. He is a young doctor who promises...', and the other interrupts, '...revenues to funeral directors?'. Courtesy of the Bibliothèque Nationale de France.

suggestion that it might even be better to remove all of women's reproductive organs *before* their forties, at the first signs of even small fibroids,<sup>174</sup> thus increasing the number of women who could be surgically targeted and expanding the population of post-menopausal women to include an even larger number of those placed surgically into a similar state. It was a remarkable new definition indeed of the medicalisation of menopause.

By the 1890s, there were many gynaecologists treating older women with benign conditions such as fibroids and ovarian cysts using hysterectomy with

<sup>174</sup> Ibid., 74.

oophorectomy, in the view that these organs were by now useless in any case and that there was little point in removing only the tumour, which was a more technical operation to be reserved for young women only. One such doctor was Émile Baudron, who had been an intern in the Paris hospital system under the surgeon Paul Segond (1851–1912). Baudron described two cases of women, one with large uterine fibroids and another with ovarian cysts, both with bleeding and pain, who had recently ceased menstruating and whom he treated using Péan's method of vaginal hysterectomy with double oophorectomy, most likely prescribing this as the only available treatment. He described their recovery from these recent surgeries as 'marvellous', but admitted that had not seen them since and so could not know anything of their long-term well-being.<sup>175</sup> But he said the vaginal and abdominal hysterectomy were both so much less dangerous than before that surgeons like Paul Segond, Samule Pozzi, Ulysse Trélat, Auguste Nélaton, and Paul Reclus were all commonly prescribing them for a wide variety of gynaecological disorders in older women 'now that the technique is well established'.<sup>176</sup> The question of the long-term after-effects of radical gynaecological surgeries was yet to change the course of medical mechanistic concepts of menopause.

### Ovarian Opothrapy in the Treatment of Surgical and Natural Menopause

Félix Léon Jayle, Samuel Pozzi's intern, was a Paris gynaecological researcher who made his debut in the 1890s, documenting the physiological effects of the 'castration' of women—the marked iatrogenic symptoms his and Pozzi's patients reported following the surgical removal of their uterus and ovaries, or the ovaries alone.<sup>177</sup> The surgical gynaecologist Baudron included some discussion in his 1894 work on vaginal hysterectomy of his case observations from the long-term follow-up of patients whose uteri and ovaries had been removed one to three years earlier; many mentioned weight gain, hot flushes, nervousness, and other symptoms—which Baudron minimised in his account of their cases as successfully curing their gynaecological disorders.<sup>178</sup> Jayle, it seems, with Pozzi's encouragement, sought to account more seriously for the after-effects of these surgeries, and to experiment with pharmacological remedies to counteract them. Jayle had defended his specialist thesis on peritoneal septicaemia at the Paris faculty in

<sup>175</sup> Émile Baudron, *De l'hystérectomie vaginale appliquée au traitement des annexes de l'utérus (Opération de Péan): Étude basée sur les 200 premières observations du Docteur Paul Segond* (Paris: Société d'Éditions Scientifiques, 1894), 177, 369.

<sup>176</sup> *Ibid.*, 13.

<sup>177</sup> Félix Léon Jayle, *Opothérapie ovarienne dans la ménopause artificielle post-opératoire et la ménopause naturelle* (Paris: Masson, 1898).

<sup>178</sup> Baudron, *Hystérectomie vaginale appliquée au traitement des annexes de l'utérus*, 88–99.

1895, though he had been working already as hospital intern for several years before this and had already co-authored a book on breast cancer in 1894 with the Paris medical professor Charles Monod.<sup>179</sup> He worked at the Broca hospital in Paris from at least 1894, and he was the editor of the *Revue de gynécologie et de chirurgie abdominale* (Review of Gynaecology and Abdominal Surgery) from 1896. His specialist work after graduation focused on a pharmacological therapy intended to counteract the side effects of the ‘castration’ of women (oophorectomy) using the new ovarian ophotherapy products derived from sheep organs, such as the product sold by the German Merck chemical company, called Ovariin (or Ovarine in France), which was available in Germany by 1895.<sup>180</sup> Jayle first began publishing his clinical findings on this topic in 1896 just as another Paris doctoral candidate supervised by Louis Landouzy (1845–1917) was writing on exactly the same theme—Maurice Lissac (1870–c.1940).<sup>181</sup> It was Landouzy who had created the word ‘opothérapie’ to refer to all of the many glandular animal tissues which were now being used as medicaments.<sup>182</sup>

These scholars writing about ovarian replacement for surgical and natural menopause were no longer a French exception, as medical specialists of menopause up to this time had mostly been. Several German, Austrian, and Swiss gynaecologists were also simultaneously experimenting with similar ovarian pharmacy products for surgical menopause patients in the new ophotherapy craze that had emerged at this time for a wide range of diseases, using a wide variety of animal organs and glands as medicaments, particularly following the success of animal thyroid extracts in the treatment of deficiencies of that gland in humans.<sup>183</sup> The use of gonadal extract was, however, an idea that French medical scholars had recently revived, following the self-injections of the French-American physiologist Charles-Édouard Brown-Séquard (1817–1894) of guinea pig testicle extract in 1889, which immediately inspired the French doctor Gaston Variot (1855–1930) to experiment with testes extracts as rejuvenation medications in a

<sup>179</sup> Félix Léon Jayle, *Septicémie péritonéale aiguë post-opératoire*. Thèse (Paris: Carré, 1895); Charles Monod & Félix Jayle, *Cancer du sein* (Paris: Rueff & C<sup>ie</sup>, 1894).

<sup>180</sup> Jayle, *Ophothérapie ovarienne dans la ménopause*; Richard Mond, ‘Kurze Mittheilungen über die Behandlung der Beschwerden bei natürlicher oder durch operation veranlasster Amenorrhoe mit Eierstockconserven (Ovariin Merck)’, *Münchener medizinische Wochenschrift*, 14 (1896): 314–316.

<sup>181</sup> Félix Léon Jayle, ‘Résultats éloignés de la castration chez la femme’, *Bulletin de l’Académie de Médecine* (1896): 196–197; Félix Léon Jayle, ‘Ophothérapie ovarienne contre les troubles consécutifs à la castration chez la femme’, *Presse médicale* (1896): 221–222; Maurice Lissac, *Traitement des troubles consécutifs à la castration chez la femme: Ophothérapie ovarienne*. Thèse (Paris: Georges Carré, 1896).

<sup>182</sup> Louis Landouzy, *Les Sérothérapies: Leçons de thérapeutique et matière médicale* (Paris: Georges Carré et C. Naud, 1898), 12. See Marchand, *Ophothérapie*, 365, 532.

<sup>183</sup> Mond, ‘Kurze Mittheilungen über die Behandlung’; F. Mainzer, ‘Vorschlag zur Behandlung der Ausfallerscheinungen nach Castration’, *Deutsche medizinische Wochenschrift*, 22/12 (1896): 188; Rudolph Chrobak, ‘Über Einverleibung von Eierstockgewebe’, *Centralblatt für Gynäkologie*, 20 (1896): 521–524; Maurice Muret, *De l’organothérapie par l’ovaire? Communication faite à la reunion de la Société vaudoise de médecine à Lavey le 18 juin 1896* (Lausanne: Georg, 1896); W. Latzko & J. Schnitzler, ‘Ein Beitrag zur Organotherapie bei Osteomalacie’, *Deutsche medizinische Wochenschrift*, 23/37 (1897): 587–592.



group of elderly men.<sup>184</sup> But in the same series of discussions of this controversial and well-known experiment, Brown-Séguard had also mentioned the possibility of a similar experiment using ovarian extracts in women, proposing that the same rejuvenation effect of testicular juice injected into elderly men could be expected of ovarian juice injected into elderly women, though animal experiments would be required before this could be tested on human subjects.<sup>185</sup> In his 1898 Bordeaux thesis published as a book on ovarian opotherapy, Louis Bestion de Camboulas claimed that Brown-Séguard had in fact proceeded with human experiments of ovarian juice the same year as he experimented with the testes extract in men, injecting forty-six elderly women with it in 1889, though notably Brown-Séguard does not appear to have published on any such experiment.<sup>186</sup> A Marseille doctor certainly did though, publishing a short pamphlet on his experiment of ovarian injections in three elderly women in 1889. The results were underwhelming, since he was not targeting the specific population most starkly deprived of their own ovarian secretions: women whose ovaries had been surgically removed in midlife.<sup>187</sup> The first doctor to do so was probably the Lausanne gynaecologist Maurice Muret, who began experimenting with ovarian extracts from around 1893, only publishing his findings in 1896, his patients being young women with amenorrhea, ovariectomised young women, and women in natural menopause; he indicated that the extracts were effective in reducing symptoms in both of the latter two groups, and in resuming the menses of the amenorrhea patients.<sup>188</sup> By 1897 the practice was unfolding in at least seven different major European clinics, including Jayle's and Pozzi's.

Lissac had worked closely with Jayle, who had encouraged him to undertake the thesis topic. Most of the case observations discussed in this thesis were Jayle's patients, while several were patients of the Kiel surgeon Richard Mond, and several were Émile Baudron's.<sup>189</sup> Lissac said that all surgeons involved in the use of

<sup>184</sup> Charles-Édouard Brown-Séguard, 'Note on the Effects Produced on Man by Subcutaneous Injections of Liquid Obtained from the Testicles of Animals', *The Lancet*, 2 (1889): 105–107; Gaston Variot, 'Trois expériences sur l'action physiologique du suc testiculaire injecté sous la peau, suivant la méthode de M. Brown-Séguard', *Comptes rendus des séances de la Société de Biologie et de ses filiales*, 41 (1889): 451–454; Charles-Édouard Brown-Séguard, 'Remarques à l'occasion du travail de M. Variot, sur les injections de liquide testiculaire chez l'homme', *Comptes rendus des séances de la Société de Biologie et de ses filiales*, 41 (1889): 454–455.

<sup>185</sup> Charles-Édouard Brown-Séguard, 'Seconde note sur les effets produits chez l'homme par des injections sous-cutanées d'un liquide retiré des testicules frais de cobaye et de chien', *Comptes rendus des séances de la Société de Biologie et de ses filiales*, 41 (1889): 420–422.

<sup>186</sup> Louis-Alexandre-Philippe Bestion de Camboulas, *Le Suc ovarien, effets physiologiques et thérapeutiques: Organothérapie ovarienne* (Paris: J. B. Baillière et fils, 1898), 14.

<sup>187</sup> Louis André Félix Villeneuve, *Quelques faits pour servir à l'histoire des injections sous-cutanées de suc de tissu testiculaire et ovarien par la méthode Brown-Séguard: Observations recueillies par MM. Vaudey et Lachaud* (Marseille: Barlatier & Barthelet, 1889).

<sup>188</sup> Muret, *De l'organothérapie par l'ovaire*.

<sup>189</sup> Lissac, *Traitement des troubles consécutifs à la castration*, 6; 53–56; 58–59.

castration surgeries in women had been singularly focused on the question of mortality from the surgery itself, ignoring the other important matter of how the patients fared after recovering from the surgery. The reason for this, he said, was that the women themselves were so fixated on getting rid of the most terrible symptoms for which they sought a life-threatening surgical solution that they 'neglected to speak with their surgeon' about all the other minor symptoms from which they had suffered and which they expected the surgery to cure, only reporting these after the surgery.<sup>190</sup> He said that his thesis would withhold all judgement about the cause of the many problems he would describe or their relation to the surgeries the women had received, reminding the reader that both age and individual constitution could account for some of the reported symptoms of women following surgical 'castration'.<sup>191</sup> The operations that caused 'castration' were a 'wonderful surgical achievement... which are of great service in many cases', and he did not wish to imply that there was any reason not to use them.<sup>192</sup> Nonetheless, he affirmed the view that 'one must never think of ablation of the ovaries without ensuring that it is manifestly not possible to undertake a more conservative surgery', adding that 'this sage precept has sometimes been forgotten' both in France and in Germany.<sup>193</sup>

Lissac claimed there was much disagreement about the matter of side effects of oophorectomy among surgeons, with some, such as Alben Martin, finding all his castrated patients reporting post-surgical symptoms such as hot flushes, dyspepsia, psychological problems, changes in character, memory loss, and hypochondria, while others such as Baudron claimed that only a small minority of patients had such problems (around 12%, in Baudron's case).<sup>194</sup> Lissac acknowledged too that French gynaecologists were not alone in investigating the treatment of side effects of oophorectomy with ovarian opotherapy. But he said that Richard Mond's data from the University of Kiel was of limited value, since the German surgeons were in the practice of performing only partial ablations of the ovary and administering Ovarine several years after the surgery.<sup>195</sup> French psychiatry had also not entertained the view espoused by the American surgeon William Goldwell that all mad women should be ovariectomised, Lissac said, pointing to Charcot's rejection of this practice and the widespread observation that hysterectomy and oophorectomy in fact exacerbated mental illness.<sup>196</sup>

Lissac's thesis focused on a description of the function of the ovaries, noting the recent recognition that these were the organs that regulated menstruation, and were a kind of 'lymphatic gland' which secreted a special, though unknown,

<sup>190</sup> Ibid., 7.      <sup>191</sup> Ibid., 8.      <sup>192</sup> Ibid., 15.

<sup>193</sup> Ibid., 15–16.      <sup>194</sup> Ibid., 8.

<sup>195</sup> Ibid., 17. See Mond, 'Kurze Mittheilungen über die Behandlung'.

<sup>196</sup> Lissac, *Traitement des troubles consécutifs à la castration chez la femme*, 16.

'chemical product' that had systemic effects in women's bodies.<sup>197</sup> This product clearly also regulated women's 'femininity', since many surgeons had noticed their castrated patients developing gravelly voices, hairs on their chins, and exaggerated skeletal growth.<sup>198</sup> These were the same changes that occurred in women after menopause, he said, indicating that the ovaries, whether absent or deficient, produced a substance that made women feminine and protected them from various symptoms.<sup>199</sup> This was the birth of the definition of menopause as a state of hormone deficiency based on the comparison with women who had been hysterectomised and ovariectomised. Lissac admitted (remarkably!) that he and a male friend had once eaten minced ovary, and said that the following night the friend experienced a most uncharacteristic terrible nightmare, while Lissac's own sleep was disturbed all night by a 'nervous irritation'; from which Lissac speculated that ovarian secretions may be a nervous toxin to men.<sup>200</sup> He also gave a detailed description of the main symptoms following oophorectomy, classing headaches, insomnia, and facial paralysis, as well as changes of character, melancholy, and suicidal thoughts among the signs of 'neurasthenia', and considering the memory problems reported by many women to be a sign of madness.<sup>201</sup> He classed digestive problems, constipation, facial acne, and obesity as 'Nutritional Disturbances', and said that sexual effects were highly varied, with many women reporting no change, around half reporting a complete abolition of all desire, and a small number reporting intensified desire.<sup>202</sup> He claimed that many of these symptoms fell under the category of 'plethora' and were often treated with blood-letting or leeches.<sup>203</sup> Old conceptual layers, it seems, take a long time to die.

Félix Jayle, on the other hand, had taken his inspiration in 1895 for the treatment of surgically induced menopause from the recent successful uses shown for thyroid opotherapy: his idea was to 'supplement' the absent secretions of the missing ovary with an opotherapy ovarian replacement.<sup>204</sup> In addition to accounting for all the various experiments of 1896 being conducted in other countries with ovarian opotherapy, Jayle undertook his own series of studies between 1895 and 1898 under the supervision of Samuel Pozzi at the Broca hospital. This entailed following the treated patients for several months or even years after their oophorectomies, which he said was designed to avoid the most common errors made in medicine in the treatment of uterine-ovarian diseases, where long-term follow-up was generally entirely absent.<sup>205</sup> He documented in great detail the symptoms reported by the hysterectomy and oophorectomy patients at the hospital, it seems, using an open-ended interview method in which he asked them if they had noticed anything new following their surgery, rather than simply giving

<sup>197</sup> Ibid., 19–20.

<sup>198</sup> Ibid., 21–22.

<sup>199</sup> Ibid., 22.

<sup>200</sup> Ibid., 29.

<sup>201</sup> Ibid., 11–13.

<sup>202</sup> Ibid., 14–15.

<sup>203</sup> Ibid., 24–25.

<sup>204</sup> Reported by Lissac, *ibid.*, 25–26.

<sup>205</sup> Ibid., 244; Félix Léon Jayle, 'Effets physiologiques de la castration chez la femme', *Revue de gynécologie et de chirurgie abdominale*, 3, May–June (1897): 403–436.

them a pre-written checklist survey, as became the standard in menopause research thereafter (with its attendant problems of suggestion).<sup>206</sup> The results of his and others' research were quite clear, Jayle said. The ovarian extracts had few side effects reported by patients who were treated with them and were particularly effective in the reduction of the vaso-motor symptoms caused by surgical castration in pre-menopausal women—hot flushes.<sup>207</sup> 'Nervous phenomena' were not affected by the medicament, however, and Jayle never saw any improvement in the patients he treated with ovarian opotherapy for 'neurasthenia' triggered by castration. He said he had also tried giving the extracts to several 'elderly women' with no success, matching the German researchers Latzko and Schnitzler's negative result from an attempt to reverse osteoporosis in elderly women using Ovariin.<sup>208</sup> In one of his initial 1896 papers he had concluded that his own patient data showing marked novel symptoms in 'castrated' women—not all of which were remediable through ovarian medicaments—indicated a need to reconsider the widespread practice of oophorectomy. 'There is cause to ask whether it would not be useful, anytime it is materially possible, to respect the ovary in the course of operations practiced on the utero-ovarian apparatus.'<sup>209</sup>

Jayle's twenty-nine case observations of ovarian medicaments given to women suffering surgical menopause symptoms, reported in his 1898 book, are noteworthy in several other respects. He recommended not telling the patients what the medication was that they were being given, in order to avoid them reacting with repugnance.<sup>210</sup> This was not unusual given that other surgeons reported not even telling their patients with fibroids that their reproductive organs would be removed in the surgery to excise their tumours. Many women were in their early to mid-twenties and were now being prescribed oophorectomy for a wide variety of benign conditions (dysmenorrhea, painful periods, white discharge, non-cancerous tumours, cysts, and inflammations). Their post-surgical symptoms (hot flushes, night sweats, headaches, insomnia, nightmares, mood changes, pelvic pain, leg neuralgia, vision problems, facial neuralgia, impaired memory, migraines, weight gain, and acne) seem to have been quite severe; although Jayle reported several of them to be 'satisfied with' the surgery they had received, suggesting that, for some at least, its immediate post-surgical side effects were not as debilitating as the conditions that it was meant to cure.<sup>211</sup> It is also clear that for most of those who suffered extreme symptoms, the remedial effect of the ovarian treatment Jayle gave them only worked for as long as they kept taking it, indicating that the

<sup>206</sup> See Mwenza T. Blell, 'Menopausal Symptoms Among British Pakistani Women: A Critique of the Standard Checklist Approach', *Menopause*, 22/1 (2015): 79–87.

<sup>207</sup> Jayle, *Opothérapie ovarienne dans la ménopause artificielle*, 244.

<sup>208</sup> *Ibid.*, 245; Latzko & Schnitzler, 'Ein Beitrag zur Organotherapie bei Osteomalacie'.

<sup>209</sup> Jayle, 'Opothérapie ovarienne contre les troubles consécutifs à la castration', 222.

<sup>210</sup> Jayle, *Opothérapie ovarienne dans la ménopause artificielle*, 244.

<sup>211</sup> *Ibid.*, 243 (Observation I), 253 (Observation VI), 254 (Observation VII), 259 (Observation XIV), 261 (Observation XVII).

surgery had created a lifelong need for medication that they did not previously have—surely a true example of iatrogenesis.<sup>212</sup> While numerous patients complained that they felt dreadful whenever they stopped taking the Ovarine, not all of them could afford the continual expense.<sup>213</sup> The surgery or the medication, or the combination of them both, seems to have caused several of the patients to become considerably overweight.<sup>214</sup> Some patients clearly considered the side effects excessive and insufficiently remedied by the ovarian medication, and one woman, ‘G’ (Observation VIII), aged 39 years, given hysterectomy with oophorectomy for fibroids, told Jayle she would never have consented to the surgery had she known how many new problems it would cause her.<sup>215</sup>

Jayle also described ‘frequently’ giving ovarian medicaments to women in their late forties and early fifties who had not undergone surgeries but who nonetheless suffered hot flushes and other menopause symptoms. He noted that the other doctors to date who had reported similar findings, Muret, Mond, and Jacobs, had merely summarised their patient outcomes without specific case observations, and had failed to ‘control for time’, by which he seems to have meant that theirs were short-term treatments without any follow-up months or years later.<sup>216</sup> Jayle provided only three case observations, saying these were representative of the three kinds of responses he had seen among the larger cohort, with little variation: either Ovarine worked initially in reducing their symptoms but then stopped working; or it improved things somewhat continuously; or else it was completely successful. But Jayle said that however well the medication worked in reducing hot flushes in these women (which was variable), few of them considered it worth the bother and expense to keep taking Ovarine continuously as it appeared was necessary to maintain its effect.<sup>217</sup> This is perhaps unsurprising given that each of these case examples described patients who were clearly dealing with several different illnesses not obviously related to their menstrual status. ‘P’ (Observation XX), who was 52 years old and a day labourer (*journalière*), had suffered hot flushes, pelvic pain, and haemorrhagic bleeding since the cessation of her menses, as well as suicidal thoughts which had previously led her to be interned for a month in the Sainte-Anne asylum. Jayle gave her Ovarine for one month and her hot flushes ceased altogether, but then returned even as she increased the dosage of Ovarine. She gained weight and began experiencing nightmares.<sup>218</sup>

‘F’ (Observation XXI), who was 49 and had given birth seven times, with two miscarriages, had recently ceased menstruating and begun experiencing pelvic pain, loss of appetite, constipation, bad digestion, frequent urination, nervousness,

<sup>212</sup> Ibid., 245 (Observation I), 247 (Observations III and IV), 247 (Observation V), 253 (Observation VII), 255 (Observation IX), 260 (Observation XIV), 263 (Observation XIX).

<sup>213</sup> Ibid., 260–262 (Observation XVII).

<sup>214</sup> Ibid., 246 (Observation II), 257 (Observation XII), 259 (Observation XIV).

<sup>215</sup> Ibid., 255. See also 263 (Observation XIX).

<sup>216</sup> Ibid., 263.

<sup>217</sup> Ibid., 263–264.

<sup>218</sup> Ibid., 264–265.

fevers, and most recently hot flushes, neuro-muscular asthenia, melancholy, insomnia, and nightmares. On gynaecological examination, she was diagnosed with inflammation of the left ovary and Fallopian tube, but she refused the operation (presumably oophorectomy) that was prescribed to her. Jayle gave her a series of ‘artificial serum injections’ (a filtered proprietary ovarian product designed for injection), one per day; on the fourth day she began to experience relief of her symptoms, which increased up to the thirteenth day of injections, after which he switched her to the injections of whole-ovary liquid. Jayle said the two kinds of injections had identical effects, only the ovarian liquid injections were more painful to receive (because they contained more organic matter, they would have provoked localised inflammation around the injection site). Her hot flushes were improved, but her pain increased and her strength diminished. This patient also received massages and laudanum rubs, which she found particularly soothing.<sup>219</sup>

‘Mme. K’ (Observation XXII), aged 47, had never had children, and was treated by a Dr Bonneau in Mantes, who reported her case to Jayle.<sup>220</sup> She was still menstruating, albeit irregularly, and suffering hot flushes and night sweats around the time of her menses, along with unexplained crying, grumpiness, excessive salivation, mysterious pains in her hands with very brittle nails, palpitations, insomnia, trembling, and suicidal thoughts. She had been gaining considerable weight over the past five or six years, was suspected of a thyroid disorder, and was found to have a highly irregular heartbeat.<sup>221</sup> Bonneau prescribed hydrotherapy treatments as well as ovarian injections, and after the fourth session of these, she appeared to him much improved; after one month of treatment her hot flushes, night sweats, and sleep were considerably improved. Bonneau tapered her off the ovarian injections and ceased them entirely once she appeared to have few remaining symptoms. Sometime later the symptoms returned but the patient was reluctant to undergo further injections, so Bonneau gave her two weeks of Ovarine pills instead. Two years later she was followed up and reported suffering no more hot flushes or sweats.<sup>222</sup> She later returned to the hospital for treatment of a heart condition, but Bonneau considered this unrelated to her menopause.<sup>223</sup>

Notably, neither Jayle nor Lissac related their ovarian research to the testicular extract experiments of Brown-Séquard that had occurred just seven years earlier, except with reference to ‘la méthode Brown-Séquard et d’Arsonval’—a specific mode of glandular extraction to produce an injectable liquid that was named after both Brown-Séquard and the physician-inventor Jacques Arsène d’Arsonval (1851–1940).<sup>224</sup> This relative dissociation from the testicular-extract experiments no doubt reflected a desire to avoid the reputation of early gonadal-glandular

<sup>219</sup> Ibid., 265–267.

<sup>220</sup> Ibid., 267.

<sup>221</sup> Ibid., 267–269.

<sup>222</sup> Ibid., 270.

<sup>223</sup> Ibid., 270–271.

<sup>224</sup> Jayle, *Opothérapie ovarienne dans la ménopause artificielle*, 243.

therapy as a source of embarrassment to French academic institutions on account of the view that testes extracts were nothing more than both an elaborate placebo and a form of aphrodisiac.<sup>225</sup> Single-remedy medicaments claiming to fix numerous conditions all at once were strongly associated in Paris medicine with empirics and charlatans. This was part of the reason for the disrepute into which Brown-Séquard's testicular opotherapy had fallen.<sup>226</sup> It was thus important for Jayle and others promoting ovarian extracts to be both circumscribed in their claims to efficacy and specific in the ailments they pertained to treat with them. Another doctoral candidate, Manuel S. Gomès in 1898, who also worked with Pozzi and Jayle at the Broca hospital, and who also wrote his thesis on the ovarian organotherapy treatment they were trialling, referred to the problem of the 'sceptical reception' received by Brown-Séquard in Paris medicine and biology to his hypothesis of the gonadal organs, including the ovary, as secretory glands.<sup>227</sup>

Gomès also reported several of the most recent case observations of Samuel Pozzi prescribing Ovarine to women in natural menopause suffering hot flushes, headaches, and other symptoms. One woman aged 54 years (Observation 1) who was still being treated by Pozzi as Gomès's thesis went to press, said she was 'in paradise' since she had started the ovarian therapy, though Gomès said it was too soon to say how long she would need to take it.<sup>228</sup> The second observation was a woman aged 47 years who had been suffering hot flushes, headaches, pelvic pains, weight gain, and 'nervous crises' since her menses had ceased. Pozzi's notes, as conveyed by Gomès, succinctly summed up the new approach to medicating women's final cessation of menses: 'Diagnosis: Menopause troubles. Treatment: Ovarine'. She was seen again after 100 days of Ovarine treatment and reported fewer hot flushes and had lost some weight.<sup>229</sup> An 1899 book summarising the current state of medical knowledge of ovarian opotherapy by the Toulouse doctor Prosper Mossé affirmed the new approach as well: 'The troubles of the menopause relate not only to a perturbation of the circulatory equilibrium caused by the cessation of the catamenial haemorrhagic flux; they seem to result from the deficiency of a secretion, which could (at least sometimes) be compensated by Ovarine.'<sup>230</sup> Another 1899 publication by the Bordeaux chemist A. Flourens,

<sup>225</sup> Merriley Borell, 'Brown-Séquard's Organotherapy and its Appearance in America at the End of the Nineteenth Century', *Bulletin of the History of Medicine*, 50 (1976): 309–320; Merriley Borell, 'Organotherapy and the Emergence of Reproductive Endocrinology', *Journal of the History of Biology*, 18 (1985): 1–30; John Hoberman, *Testosterone Dreams: Rejuvenation, Aphrodisia, Doping* (Berkeley: University of California Press, 2005), 2; Sengoopta, *The Most Secret Quintessence of Life*, 36–40; Celia Roberts, *Messengers of Sex: Hormones, Biomedicine and Feminism* (Cambridge: Cambridge University Press, 2007), 114.

<sup>226</sup> As explicitly noted in Marcellin Bertholet, *Notice sur la vie et les travaux de M. Brown-Séquard* (Paris: Institut de France, 1898), 256.

<sup>227</sup> Manuel S. Gomès, *De l'opothérapie ovarienne, contribution à l'étude physiologique et thérapeutique de l'ovarine*. Thèse (Paris: Georges Carré & C. Naud, 1898), 8–9.

<sup>228</sup> *Ibid.*, 22–23. <sup>229</sup> *Ibid.*, 25.

<sup>230</sup> Prosper Mossé, *État actuel de l'opothérapie ovarienne: Étude expérimentale et clinique* (Paris: J. B. Baillière et fils, 1899), 62.

whose laboratory manufactured ovarian pills containing ten centigrams of fresh sheep ovary, also promoted their use in treating ‘troubles of the menopause’, for which the standard dose was two pills per day.<sup>231</sup>

The new Broca researcher-clinicians working with ovarian oophorectomy appeared wary of the attempts by some psychiatrists to enlist both oophorectomy and ovarian extracts in the treatment of mental pathologies in women attributed to the influence of their genital organs. This mid-nineteenth-century concept was held in relative contempt by the leading figures of neurology and psychiatry, such as both Jean-Martin Charcot and the Paris faculty professor Charles Souleyre, but persisted as a fringe theory entertained by number of doctors at the *fin de siècle*, especially the Bordeaux psychiatrist Emmanuel Régis whom we met in Chapter 7. He published papers throughout the 1890s on the idea of ovarian pathologies as the cause of women’s madness, including one which reported a partially positive outcome of injecting ovarian juice into a single patient whose mental illness was attributed to her oophorectomy.<sup>232</sup> The Montpellier surgeon Dr Henri Castagné was also a rare proponent in France of the practice that was widespread in North American psychiatry at the time, of hysterectomising and ovariectomising women diagnosed with hysteria, inducing artificial menopause on the basis of the belief that it was a time when hysteria naturally reduced or resolved.<sup>233</sup> Nonetheless, even Castagné concluded that it was much too dangerous an operation to be used as a common treatment for mental pathologies, and should be reserved only for those patients in whom all other therapies had failed and who also had gynaecological pathologies worthy of surgery in themselves.<sup>234</sup> Souleyre published his major work in 1898 on the ‘genito-pathologies’ of neurasthenic women, in which he affirmed the more widespread view that surgical castration aggravated female mental pathologies, surveying a wide range of psychiatric and surgical views on the matter and citing only one French author, Auguste Lutaud, who regarded the surgery as an ‘ultimate resource’.<sup>235</sup> Nonetheless, it was hard to deny that ovarian oophorectomy might be of value to women whose novel nervous pathologies had followed their surgical castration. Souleyre thus considered ovarian juice as just one of many possible pharmacological remedies with promise in the treatment of women’s nervous and mental diseases, but he said that the evidence for it was still insufficient and unclear on account of the role of

<sup>231</sup> A. Flourens, *De l'opothérapie* (Bordeaux: G. Gounouilhou, 1899), 8.

<sup>232</sup> Emmanuel Régis, ‘Cas de folie consécutive à une ovaro-salpingectomie’, *Journal de médecine de Bordeaux*, 37/10 September (1893), 413–417.

<sup>233</sup> Henri Castagné, *De l'ablation des annexes de l'utérus dans l'hystérie* (Montpellier: Charles Boehm, 1891). See Wendy Mitchinson, *The Nature of Their Bodies: Women and Their Doctors in Victorian Canada* (Toronto: University of Toronto Press, 1991).

<sup>234</sup> Castagné, *De l'ablation des annexes de l'utérus dans l'hystérie*, 77.

<sup>235</sup> Charles Souleyre, *Neurasthénie et génitopathies féminines, étude des formes utérines secondaires de la névrose* (Paris: Baillière, 1898), 190–192.



'auto-suggestion' that may explain the effects of the ovarian injections used in most of the small clinical experiments to date.<sup>236</sup>

Brown-Séguard was revived in other major 1898 publications in France on questions relating to ovarian opotherapy and menopause, most notably of the book by Bestion de Camboulas, published by the eminent Paris medical press J. B. Baillière et fils, which summarised the significance of the various European experiments on this theme, relating both to natural and to surgical menopause (and which was immediately—and rather negatively—reviewed in the *British Medical Journal*).<sup>237</sup> The similarity of the symptoms experienced by the two groups clearly indicated that the mechanism of menopause was a natural process of ovarian decline, Bestion said, explicitly connecting this new theory to the discovery of Brown-Séguard and the French physiologist's hypothesis of 1889 that the ovary was another secretory gland which deposited into the bloodstream its very own special substance.<sup>238</sup> Jayle too had insisted on the nature of the ovary as a secretory gland comparable to the thyroid.<sup>239</sup> Bestion de Camboulas mentioned four other commercial ovarian products in addition to Ovarine that were already in circulation in French pharmacy by 1898: Ovaraden, Oophorine, Ovigénine, and Ovairine.<sup>240</sup> It was clearly already a thriving and expanding commercial enterprise before the century's end. Bestion even revived the 'Propter uterum' aphorism here too, now relating it to the new evidence of the importance of the ovarian secretions for women's femininity, vitality, sanity, and ageing well-being.<sup>241</sup> Most of his book, however, focused on Bestion's own animal experiments, injecting suprphysiological amounts of ovarian extract into crows and rabbits of both sexes, with mostly disastrous consequences for the poor beasts, which was the focus of the *British Medical Journal's* contempt for the book.<sup>242</sup> But he also provided an inventory of several of the Aquitaine clinicians now prescribing ovarian juice to menopausal women and who had transmitted their private case notes to him, including the Bordeaux university professors Anozan and Boursier, Dr Monod of the Maison protestante de Bordeaux, Dr Courtin, and Dr Rogée in Saint-Jean-d'Angély, just north of Bordeaux.<sup>243</sup>

The use of ovarian opotherapy was also most certainly becoming more common even before 1898 in other parts of France in the treatment of women who had not been hysterectomised. But this was not yet based on the idea of ovarian deficiency, which only became the central rationale of ovarian and hormone replacement after Jayle's work at the Broca hospital, and the similar experiments of

<sup>236</sup> Ibid., 200.

<sup>237</sup> Bestion de Camboulas, *Le Suc ovarien*; Anon., 'Le Suc ovarien, effets physiologiques et thérapeutiques (The Physiological and Therapeutic Effects of Ovarian Juice) by L. Bestion de Camboulas', *British Medical Journal*, 2/1958 (1898): 87–88.

<sup>238</sup> Bestion de Camboulas, *Le Suc ovarien*, 23.

<sup>239</sup> Jayle, *Opothérapie ovarienne dans la ménopause artificielle*, 239.

<sup>240</sup> Bestion de Camboulas, *Le Suc ovarien*, 27.

<sup>241</sup> Ibid., 21.

<sup>242</sup> Ibid., 35–64.

<sup>243</sup> Ibid., 67–111.

German, Swiss, and Belgian doctors. For instance, in his 1896 book of *Consultations on the Diseases of Women*, the Mâcon medical gynaecologist Auguste Joseph Lutaud (1847–1925), mentioned by Souleyre as an enthusiast of surgical castration, prescribed ovarian products for acute (but not chronic) metritis.<sup>244</sup> Lutaud, who published several major works on women's gynaecological health and edited the *Paris Journal of Medicine* (among several journals), was, like Péan, an ardent opponent of Pasteur's theory of bacteria as the cause of disease, as well as a moral campaigner against prostitution, which he considered would be made redundant by the legalisation of divorce without cause.<sup>245</sup> He said that haemorrhagic bleeding was almost always a sign of serious uterine pathology, so that opotherapy medications for this condition were at best an adjunct therapy. The exception was in women around the time of menopause, for whom haemorrhages were often 'essential', in which case these were amenable to a purely pharmaceutical treatment with ovarian opotherapy. Medicating menopause with ovarian extract was thus assimilated into his gynaecology practice simply as one of the many 'relative particularities' to take into account in the judgement of clinical diagnoses and therapeutic determinations.<sup>246</sup> Lutaud did, however, also make special mention of older women among his patients in the section of his *Consultations* on nymphomania, for which the treatments ranged from the pharmacological (strontium, bitter orange, potassium bromide, camphor, Indian hemp, etc.) to the moral (behavioural change, recommendation of marriage) to the surgical (especially clitoridectomy, which he said was a very effective cure).<sup>247</sup> Uteruses and ovaries, it seems, were not the only organs being cut out of older women in the medical view of their genital organs as monstrous, diseased, or useless.

Hysterectomies were by this time widely prescribed to older women too, not only for fibroids but also for uterine prolapse. This condition was not uncommon among older working-class mothers who had endured numerous long and difficult labours during their childbearing years, though these were already becoming less common due to the increasing use of Caesarean section in obstetrics from the end of the nineteenth century—which were also sometimes combined with hysterectomy and oophorectomy.<sup>248</sup> The Nancy gynaecological surgeon Gaston Lanique described nine such cases of women with uterine prolapse in his

<sup>244</sup> Auguste Joseph Lutaud, *Consultations sur les maladies des femmes* (Paris: Rueff, 1895), 81.

<sup>245</sup> Auguste Joseph Lutaud, *Études sur la rage et la méthode Pasteur* [1887], 2nd ed. (Paris: Journal de médecine de Paris, 1891).

<sup>246</sup> Lutaud, *Consultations sur les maladies des femmes*, 176. <sup>247</sup> *Ibid.*, 99.

<sup>248</sup> Charles Maygrier, *Étude sur l'opération de Porro: Opération césarienne suivie de l'amputation de l'utérus et des ovaires* (Paris: A. Delahaye et L. Lecrosnier, 1880); V. Duchamp, *De l'amputation par le vagin de l'utérus artificiellement inversé comme complément de l'opération césarienne* (Saint-Étienne: J. Pichon, 1886); Julien Potocki, *De l'opération césarienne, et, en particulier, de l'opération césarienne avec double suture de l'utérus, par la méthode de Saenger* (Paris: G. Steinheil, 1886); Émile Blanc, *De l'opération césarienne, méthodes opératoires et indications* (Paris: Lecrosnier et Babé, 1890).

case observations in an 1894 book about vaginal hysterectomy.<sup>249</sup> He clearly distinguished the validity of the surgery based on the age of the patient: after menopause, the womb 'is no longer a useful organ,' whereas for younger women it was 'still good for fecundation.'<sup>250</sup> He claimed that almost all doctors were now in favour of removing the uterus and ovaries of all older women at any sign of gynaecological disorder, saying that 'practically everyone agreed on the completely innocuous character of the operation.' Nonetheless, Lanique also noted the continuation of a marked medical opposition to the practice by several physiologists and gynaecologists who he said viewed it as a 'pis-aller thérapeutique' ('crappy therapeutic solution').<sup>251</sup>

By 1900 numerous studies, both Jayle's and others, had indicated that many women whose uterus and/or ovaries had been removed were complaining of post-surgical symptoms that were sometimes very serious. The acknowledgement by Jayle and other surgeons that removal of women's reproductive organs was not without serious negative effects disturbed the view of them as dispensable defended by most other pro-hysterectomy voices. The new oophorectomy pharmaceuticals provided a partial solution to the problem in the form of ovarian supplementation—the precursor of oestrogenic hormone replacement therapies marketed by pharmaceutical companies after 1939.<sup>252</sup> But ovarian products were not a rejuvenation elixir, and could not offset all the iatrogenic effects of surgical castration, even if they clearly were a partially effective remedy for menopausal hot flushes, particularly those provoked by the abrupt loss of ovarian function due to the ovaries' removal during the fertile years of a woman's lifespan. Importantly though, while ovarian therapies were initially developed for women of menstruating ages who had undergone hysterectomy and oophorectomy, they were then very quickly extrapolated to all post-menopausal women, who were now theorised to be 'ovarian deficient' according to a presumed (though never defined) endocrine norm of young (non-hysterectomised/ovariectomised) women. From this moment onwards, the surgical removal of uteruses and ovaries knew no bounds in French, German, and American gynaecology. A 1960 American gynaecological society narrative about the history of the discipline acknowledged that the 'sudden burst of endocrines' in the early twentieth century was responsible for the massive increase in gynaecological surgeries thereafter.<sup>253</sup> Hysterectomy/oophorectomy and pharmaceutical ovarian replacement thus represented a mutually reinforcing medico-technological complex, an entanglement of two forms of treatment that

<sup>249</sup> Gaston Lanique, *De l'hystérectomie vaginale totale appliquée au traitement du prolapsus utérin complet* (Nancy: Imprimerie Coopérative de l'Est, 1894), 32, 41, 48, 63, 74–78, 85–86.

<sup>250</sup> *Ibid.*, 86. <sup>251</sup> *Ibid.*, 85–86.

<sup>252</sup> Borell, 'Organotherapy and the Emergence of Reproductive Endocrinology'; Sengoopta, *The Most Secret Quintessence of Life*, 154–194.

<sup>253</sup> Theodore Cianfrani, *A Short History of Obstetrics and Gynecology* (Springfield Ill.: Charles C. Thomas, 1960), xi.

would be rapidly globalised in the second half of the twentieth century. This chapter does not proceed beyond the first decade of the twentieth century, since from this moment onwards the elaboration of menopause as an object of medicalisation was no longer a specifically French phenomenon. Their work was done in putting into place an elaborate accumulation of conceptual layers relating to women's ageing and the inherent morbidity of their reproductive organs.