West Middlesex University Hospital

Date of Search: 13 Jul 2017
Sources Searched: Medline, Embase, PubMed

Pulmonary Leiomyomatous Hamartoma

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1. Benign metatasizing leiomyomatosis: A rare cause of cavitary pulmonary nodules and cysts

Author(s): Kilbourne S.K.; Jolissant J.; LaFortune K.; Patel M.; Lau C.L.

Source: American Journal of Respiratory and Critical Care Medicine; 2015; vol. 191

Publication Date: 2015

Publication Type(s): Conference Abstract

Available in full text at American Journal of Respiratory and Critical Care Medicine - from ProQuest

Available in full text at American Journal of Respiratory and Critical Care Medicine - from Free Access Content

Abstract: Introduction: Benign metastatic leiomyomatosis is an exceedingly rare cause of pulmonary nodules and cysts found in reproductive age women who have undergone a hysterectomy for uterine leiomyoma. We report a case of a 46-year-old woman with bilateral pulmonary cavitating nodules and cysts who was ultimately diagnosed with BML. Case Report: A 46-year-old woman with a history of asthma, atrial fibrillation and hypertension presented initially with dyspnea and cough. The patient's past medical history was notable for hysterectomy one year prior to presentation for an intramural leiomyoma. Without improvement with treatment for an asthma exacerbation, a chest CT scan demonstrated bilateral single irregularly-shaped pulmonary cysts associated with scattered solid pulmonary nodules, some of which demonstrate eccentric cavitation, with slight upper lobe predominance, and no bronchiectasis. She then underwent a surgical lung biopsy. Histologic examination of the right lower lobe lung biopsy revealed smooth muscle cells, without cytologic atypia, necrosis and mitotic figures. Immunohistochemistry revealed strong positivity for smooth muscle actin, progesterone receptor, and focal nuclear positivity for estrogen receptor, most consistent with a diagnosis of benign metastasizing leiomyomatosis. A diagnosis of lymphangioleiomyomatosis was excluded based on morphologic features and negative immunostaining for human melanoma black-45. Discussion: Benign metastasizing leiomyomatosis (BML) is a rare disease that occurs in women of reproductive age with a history of uterine leiomyomata who have been treated with hysterectomy. Often patients are asymptomatic with pulmonary nodules found incidentally. If present, the most common symptoms are non-specific: cough, dyspnea, and chest pain. Radiographic findings reveal solitary or multiple well-circumscribed nodules, ranging from a few millimeters to several centimeters. In patients with predominantly multiple, bilateral pulmonary cysts, BML can have similar radiographic appearance to lymphangioleiomyomatosis (LAM). At present, no consensus guidelines exist for the treatment of BML. Current therapies include antiestrogen management with salpingo-oophorectomy, gonadotropin-releasing hormone analogue, or conservative management with observation and surveillance for progression. Overall, prognosis is favorable. The differential diagnoses include primary lung smooth muscle proliferations: pulmonary hamartoma, lymphangioleiomyomatosis,

leiomyoma, and leiomyosarcoma, as well as smooth muscle metastases from distant sites. It has been suggested that BML represents a low-grade, slow-growing and multifocal leiomyosarcoma. However, histologic examination consistently fails to show features of malignancy including an increased mitotic rate, necrosis and cytologic atypia. The combined morphologic and immunophenotypic profile help delineate BML and LAM. (Figure Presented).

Database: EMBASE

2. Clonal expansion of multiple pulmonary leiomyomatous hamartoma: 12-year follow-up.

Author(s): Sugawara, Masato; Kato, Noriko; Endo, Makoto; Oizumi, Hiroyuki; Motoyama, Teiichi

Source: Pathology international; Nov 2009; vol. 59 (no. 11); p. 828-830

Publication Date: Nov 2009

Publication Type(s): Letter Case Reports

PubMedID: 19883436

Available in full text at Pathology International - from John Wiley and Sons

Database: Medline

3. Multiple progressive pulmonary leiomyomatous metastases treated with tamoxifen--a case report with a review of the literature.

Author(s): Säynäjäkängas, O; Maiche, A G; Liakka, K A

Source: Acta oncologica (Stockholm, Sweden); 2004; vol. 43 (no. 1); p. 113-114

Publication Date: 2004

Publication Type(s): Case Reports Journal Article Review

PubMedID: 15068329

Available in full text at Acta Oncologica - from Free Access Content

Database: Medline

4. Multiple benign lung tumors.

Author(s): Allen, Mark S

Source: Seminars in thoracic and cardiovascular surgery; Jul 2003; vol. 15 (no. 3); p. 310-314

Publication Date: Jul 2003

Publication Type(s): Journal Article Review

PubMedID: 12973710

Abstract: Multiple benign pulmonary nodules are rare and are from a variety of etiologies. Infectious causes, such as histoplasmosis, tuberculosis, or parasitic infections, usually require biopsy for confirmation. An interesting entity, benign metastasizing leiomyoma, is rare but occurs from a low-grade leiomyoma that most commonly spreads from the uterus.

Database: Medline

5. Multiple pulmonary leiomyomatous hamartomas associated with a bronchogenic cyst in a man.

Author(s): Nistal, Manuel; Hardisson, David; Riestra, María Luisa

Source: Archives of pathology & laboratory medicine; Apr 2003; vol. 127 (no. 4); p. e194

Publication Date: Apr 2003

Publication Type(s): Case Reports Journal Article

PubMedID: 12683900

Available in full text at Archives of Pathology & Laboratory Medicine - from EBSCOhost

Available in full text at Archives of Pathology and Laboratory Medicine - from ProQuest

Abstract: Multiple pulmonary leiomyomatous hamartomas (MPLHs) are extremely rare lesions. We present a case of MPLHs associated with a bronchogenic cyst in a symptomless, 46-year-old man. Previously, MLPHs have been reported to occur in men; therefore, not all cases of MPLHs represent metastases from a uterine smooth muscle tumor. Because these lesions represent a tumorlike overgrowth of normal tissue, we think that leiomyomatous hamartoma is an appropriate term to designate this entity. The possible influence of inflammatory cell mediators in the pathogenesis of MPLHs remains speculative.

Database: Medline

6. Benign metastasizing leiomyoma in the lung: A case report

Author(s): Sabatini R.; Ferreri R.; Distante G.; Loizzi V.; Loizzi P.

Source: European Journal of Gynaecological Oncology; 2002; vol. 23 (no. 5); p. 445-446

Publication Date: 2002

Publication Type(s): Article

PubMedID: 12440822

Abstract: The authors report a rare case of leiomyomatosis of the lung diagnosed in a women with uterine leiomyomatosis not previously treated. The absence of mitosis with nuclear atypism in all histological samples opens the question of whether the origin of the tumor in the lung was from uterine leiomyomas metastasizing or multifocal amarthomas, synchronous or metachronous. Hamartomas or real metastasis of uterine leiomyomas? The response to GnRH analogue treatment was evaluated.

Database: EMBASE

7. Endometrial stromal sarcomas with unusual histologic features: a report of 24 primary and metastatic tumors emphasizing fibroblastic and smooth muscle differentiation.

Author(s): Yilmaz, Asli; Rush, Demaretta S; Soslow, Robert A

Source: The American journal of surgical pathology; Sep 2002; vol. 26 (no. 9); p. 1142-1150

Publication Date: Sep 2002

Publication Type(s): Journal Article

PubMedID: 12218570

Abstract: We report the clinicopathologic features of 24 uterine primary and metastatic endometrial stromal sarcomas with fibromyxoid features (ESS-F) and smooth muscle differentiation (ESS-SM) (endometrial stromal sarcoma variants). Two groups of tumors were retrieved from the surgical pathology files at Memorial Sloan-Kettering Cancer Center: 1) gynecologic mesenchymal neoplasms with striking smooth muscle or fibroblastic differentiation that did not meet the clinical or histologic criteria for leiomyosarcoma or other established neoplasms containing smooth muscle; and 2) metastatic lesions showing ovoid and spindle cell morphology, involving lung, originally diagnosed as low-grade leiomyosarcoma, low-grade smooth muscle neoplasm, intravenous leiomyomatosis, fibrous hamartoma, and benign metastasizing leiomyoma. We identified 12 patients with 30 tumors; 24 were available for review. The mean age was 51 years (range 21-74 years). Follow-up >1 year was available for eight patients, with a mean time of 8.5 years. Each patient had a uterine primary and 10 experienced metastases. Mean time to recurrence was 6.8 years. Sites of metastasis included lung, retroperitoneum, right atrium/inferior vena cava, colon, and ovaries. No patient died of disease, but in many cases the follow-up period ended with the discovery of a metastasis. Four patients were originally diagnosed with endometrial stromal sarcoma, but other presenting diagnoses included benign metastasizing leiomyoma, fibroleiomyomatous tumor of lung, smooth muscle tumor of uncertain or low malignant potential, and intravascular leiomyomatosis. On review each patient had at least one tumor (primary and/or metastasis) that was determined to be an endometrial stromal sarcoma variant. Review diagnoses were as follows: endometrial stromal sarcoma (nonvariant), ESS-F, and ESS-SM. Eight of 10 primary tumors with available slides were endometrial stomal sarcoma variants (six ESS-F and two ESS-SM). When these variant features were present, they comprised between 50% and 100% of the neoplasm. The variant histology tumors exhibited prominent spiral arterioles, perivascular edema, and stromal cell condensation around blood vessels. All metastases but one were variant tumors; eight were ESS-F and five were ESS-SM. Four metastases did not resemble the uterine primary. Desmin marked smooth muscle mostly but not specifically. h-Caldesmon marked smooth muscle exclusively. Endometrial stromal cells as well as some fibroblasts and smooth muscle cells expressed CD10. We conclude that the presence of even focal endometrial stromal differentiation in an invasive uterine mesenchymal lesion with a predominant low-grade smooth muscle, fibroblastic, and/or myxoid phenotype should permit classification as low-grade sarcoma-they should be considered endometrial stromal sarcomas.

Database: Medline

8. Multiple pulmonary leiomyomatous hamartoma with secondary ossification

Author(s): Kato N.; Endo Y.; Tamura G.; Motoyama T.

Source: Pathology International; 1999; vol. 49 (no. 3); p. 222-225

Publication Date: 1999

Publication Type(s): Article

PubMedID: 10338077

Available in full text at Pathology International - from John Wiley and Sons

Abstract:A 31-year-old woman presented with multiple pulmonary leiomyomatous hamartoma (MPLH) with secondary ossification. She had a past history of parosteal osteosarcoma. The pulmonary lesions were composed of spindle- shaped cells arranged in interlacing fascicles, among which glands or duct- like spaces were scattered. As some lesions contained bony tissues, it was unclear whether or not the pulmonary lesions were metastases of parosteal osteosarcoma. However, the majority of spindle-shaped cells were positive for alpha-smooth muscle actin, including cells proliferating around the bony tissues. Clonality analysis using a target of human androgen receptor (HUMARA) gene disclosed that the pulmonary nodules were polyclonal. These findings do not indicate that the lesions were metastatic. We would like to emphasize, that MPLH can show osseous metaplasia.

Database: EMBASE

9. A case of multiple pulmonary leiomyomatous hamartoma

Author(s): Ohno K.; Kuwata K.; Hashimoto J.; Yamamoto S.; Nishida Y.; Sakaguchi T.

Source: [Zasshi] [Journal]. Nihon Kyobu Geka Gakkai; May 1996; vol. 44 (no. 5); p. 723-728

Publication Date: May 1996

Publication Type(s): Review

PubMedID: 8965010

Abstract:A 45-year-old woman with multiple pulmonary leiomyomatous hamartoma was reported. Multiple round shadows were observed in the chest X-ray film of mass examination. Retrospectively chest X-ray films revealed an increase in size and number of pulmonary nodules in three years. Metastatic pulmonary tumors were suspected. Primary site was unclear. Calcified myoma uteri was recognized. The pathological diagnosis under diagnostic thoracotomy was multiple leiomyomatous hamartoma. After ten months of medical castration using superactive analogue of LHRH (buserelin) by intranasal spray, chest X-ray film showed a slight decrease in size of nodular shadows in the right middle lung field.

Database: EMBASE

10. Multifocal micronodular pneumocyte hyperplasia: A distinctive pulmonary manifestation of tuberous sclerosis

Author(s): Guinee D.; Singh R.; Azumi N.; Singh G.; Przygodzki R.M.; Travis W.; Koss M.

Source: Modern Pathology; 1995; vol. 8 (no. 9); p. 902-906

Publication Date: 1995

Publication Type(s): Article

PubMedID: 8751329

Abstract: We report a peculiar multifocal micronodular proliferation of pneumocytes occurring in a 24-yr-old woman with tuberous sclerosis and lymphangioleiomyomatosis. A computed tomographic scan of the chest demonstrated multiple minute nodules present throughout both lung fields. Histologically, the nodules were well demarcated, measured up to 1.6 mm in diameter, and were composed of thickened, fibrotic, alveolar septa lined by pleomorphic, type II pneumocytes. Positive immunohistochemical stains for keratin, BER-EP4, and surfactant, and negative immunohistochemical staining with an antibody recognizing Clara cells support an epithelial origin from type II pneumocytes. The absence of immunohistochemical staining for HMB45 suggests a histogenesis separate than the lesions of lymphangioleiomyomatosis. We failed to detect estrogen or progesterone receptors in either the lesions of lymphangioleiomyomatosis or the micronodular proliferations. Recognition of these unique lesions facilitates their distinction from other epithelial proliferations, particularly atypical bronchioloalveolar cell hyperplasia. This lesion appears to be a distinctive manifestation of tuberous sclerosis. It is probably hamartomatous.

Database: EMBASE

11. Recurrent multiple leiomyomatous hamartomas of the lung

Author(s): Gabka C.J.; Muller C.; Baretton G.; Dienemann H.; Schildberg F.W.

Source: Der Chirurg; Zeitschrift fur alle Gebiete der operativen Medizen; May 1995; vol. 66 (no. 5); p. 530-533

Publication Date: May 1995

Publication Type(s): Article

PubMedID: 7607019

Abstract:A 40 year old female was operated because of pulmonary leiomyomatous hamartoma. Despite repeated surgical resection therapy during the following years she developed recurrent multiple hamartoma. The indication for multiple surgery only included compression of central vessels or rapid growth of the hamartomas. The history of hysterectomy--as in our patient--is common for patients with multiple leiomyomatous pulmonary hamartoma. However, revision of the histological slides revealed no hint of uterine leiomyosarcoma. Therefore, a primary pulmonal (and recurrent) multiple hamartosis seems obvious.

Database: EMBASE

12. Multiple pulmonary leiomyomatous hamartomas.

Author(s): Reynolds, J V; Kealy, W F; O'Sullivan, G C

Source: Irish medical journal; Apr 1984; vol. 77 (no. 4); p. 106-107

Publication Date: Apr 1984

Publication Type(s): Case Reports Journal Article

PubMedID: 6735666

Available in full text at Irish Medical Journal - from Free Access Content

Database: Medline

13. Multiple pulmonary leiomyomatous hamartomas

Author(s): Kaukel E.; Burkhardt A.; Vogel H.

Source: Praxis und Klinik der Pneumologie; 1983; vol. 37 (no. 2); p. 71-76

Publication Date: 1983

PubMedID: 6835927

Abstract: Multiple pulmonary nodular densities were discovered in a routine chest roentgenogram of a 54-year-old woman. Lung biopsy identified these lesions to be smooth muscle cells without mitotic activity. No glandular, adipose or chondromatous tissue was detectable in these tumors. The lack of cellular pleomorphism and mitoses as well as the fact that metastases in other organs are absent in all cases of multiple pulmonary leiomyomas reported so far favours the hypothesis, that this extremely rare disease arises from the contractile interstitial cells of the lung acini.

Database: EMBASE

14. Leiomyomatous lung lesions: A proposed classification

Author(s): Martin E.

Source: American Journal of Roentgenology; 1983; vol. 141 (no. 2); p. 269-272

Publication Date: 1983

Publication Type(s): Article

PubMedID: 6603116

Available in full text at American Journal of Roentgenology - from Free Access Content

Abstract:A case of multiple pulmonary leiomyomas is presented. In a review of the literature, a confusing array of rare diseases all pertaining to multiple leiomyomas was found. These were reduced to three entities: leiomyomatosis in women, metastatic leiomyoma in men and children, and multiple pulmonary fibroleiomyomatous hamartoma occurring in anyone. The leiomyomatous diseases in women are related to uterine leiomyomas and they are hormone-sensitive. This is of great prognostic importance. The classification, definitions, and discussion should prove helpful in understanding these rare multiple diseases.

Database: EMBASE

15. The origin of the pseudoglandular spaces in metastatic smooth muscle neoplasm of uterine origin. Report of a case with ultrastructure and review of previous cases studied by electron microscopy.

Author(s): Herrera GA; Miles PA; Greenberg H; Reimann BE; Weisman IM

Source: Chest; Feb 1983; vol. 83 (no. 2); p. 270-274

Publication Date: Feb 1983

Publication Type(s): Case Reports; Journal Article

PubMedID: 6822113

Available in full text at Chest - from Free Access Content

Abstract: The entity known as "leiomyomatous hamartoma," a term that has been used in reference to metastatic smooth muscle neoplasms of uterine origin (MSMNUO), is uncommon. Several articles have dealt with clinical and light microscopic aspects of this lesion. Four reports on the ultrastructure of this type of neoplasm have been published, but they have been primarily concerned with its smooth muscle component. Much controversy exists as to whether the glandular elements are part of the neoplastic process or preexisting pulmonary elements. This ultrastructural study confirms that the gland-like spaces represent entrapped alveoli and terminal respiratory bronchioles.

Database: PubMed

16. Multiple pulmonary leiomyomateous hamartoma

Author(s): Vogel H.; Kaukel E.; Otto H.F.

Source: Rontgen-Blatter; 1981; vol. 34 (no. 5); p. 190-191

Publication Date: 1981

PubMedID: 7244553

Abstract: The multiple pulmonary leiomyomatous hamartoma (MPLH) is rare. Typical is the difference between the marked pulmonary alterations on chest X-ray film and the poor symptomatology. MPLH is observed almost always among women. The diagnosis is linked to pathological-histological findings.

Database: EMBASE

17. A resected case of pulmonary multiple fibro-leiomyomatous hamartoma--light and electron microscopic study.

Author(s): Shirakusa, T; Yoshida, T; Kinjo, M; Aoki, E; Inokuchi, K

Source: The Japanese journal of surgery; Jun 1979; vol. 9 (no. 2); p. 141-147

Publication Date: Jun 1979

Publication Type(s): Case Reports Journal Article

PubMedID: 449129

Abstract:A light and electron microscopic study of a case of multiple pulmonary fibro-leiomyomatous hamartoma is described. Like the previous reports, the patient was an old woman with no complaint. The histologic features were characterized by mingling with rich fibroblasts and mesenchymal cells. The definite diagnosis was made by the features which were detected ultrastructurally. In this case, we considered that the fibrous component was more predominant than the leiomyomatous component.

Database: Medline

18. Multiple chronic benign pulmonary nodules.

Author(s): Kalifa, L G; Schimmel, D H; Gamsu, G

Source: Radiology; Nov 1976; vol. 121 (no. 2); p. 275-279

Publication Date: Nov 1976

Publication Type(s): Case Reports Journal Article Research Support, U.s. Gov't, P.h.s.

PubMedID: 981596

Available in full text at Radiology - from Free Access Content

Abstract: Four cases are discussed in which were found unusual multiple chronic pulmonary nodules: leiomyomatous hamartomas, rheumatoid nodules, multiple histoplasmomas, and possible multiple plasma cell granulomas (hyalinizing pulmonary nodules). In each case the initial impression of metastic malignancy was countered by more than 2 years' observation, during which time the lesions appeared to be benign. Histologic examination is necessary to exclude malignancy, although a definitive diagnosis may be difficult to establish.

Database: Medline

19. Multiple pulmonary leiomyomatous hamartomas: report of a case with ultrastructure examination.

Author(s): Silverman, J F; Kay, S

Source: Cancer; Sep 1976; vol. 38 (no. 3); p. 1199-1204

Publication Date: Sep 1976

Publication Type(s): Case Reports Journal Article

PubMedID: 953964

Available in full text at Cancer - from Wiley-Blackwell Free Backfiles NHS

Available in full text at Cancer - from John Wiley and Sons

Abstract: The electron microscopic features of pulmonary leiomyomatous hamartoma, very rare neoplasm, were studied. Characteristic smooth muscle cells containing microfilaments, dense bodies, plaques, pinocytotic vesicles, and basal lamina were present. Fibrosis was minimal, which supports the belief that this component is a secondary phenomena.

Database: Medline

20. Multiple pulmonary leiomyomatous hamartomas in women.

Author(s): Becker, R M; Viloria, J; Chiu, C

Source: The Journal of thoracic and cardiovascular surgery; Apr 1976; vol. 71 (no. 4); p. 631-632

Publication Date: Apr 1976

Publication Type(s): Case Reports Journal Article

PubMedID: 1263547

Available in full text at Journal of Thoracic and Cardiovascular Surgery - from Free Access Content

Abstract:A rare case of multiple pulmonary leiomyomatous hamartomas is described and seven previously reported cases are reviewed. The pathological and clinical features of this lesion, which is benign and occurs in middle-aged women, are unique; a conservative approach following the establishment of diagnosis is recommended.

Database: Medline

21. Multiple leiomyomatous hamartoma of the lungs.

Author(s): Sulser H; Bühler H

Source: Schweizerische medizinische Wochenschrift; Jan 1975; vol. 105 (no. 2); p. 56-60

Publication Date: Jan 1975

Publication Type(s): Journal Article

PubMedID: 1121655

Available in full text at Swiss Medical Weekly - from Free Access Content

Abstract: Leiomyomatous hamartomas of the lungs are very rare lesions. As far as we know only 14 cases (including ours) have been published so far. In contrast to chondromatous hamartomas, they are exclusively found in women and as a rule are multiple. They are frequently an incidental finding in chest roentgenograms, where they appear as multiple round nodules which are often mistaken for metastases. However, as these lesions remain virtually the same size for long observation periods, differentiation is easily possible. This fact is well shown in our patient, in whom multiple nodules in the lungs were diagnosed at the age of 45 years and observed over a period of 35 years. They were first identified as leiomyomatour hamartomas at autopsy. No therapy is indicated as these lesions have no tendency to become malignant and only rarely and insignificantly interfere with respiratory function. Thoracotomy with biopsy for histological diagnosis is however indicated, since only thus can metastases be definitely ruled out.

Database: PubMed

22. Multiple pulmonary leiomyomatous hamartomas. A case report.

Author(s): Del Pozo, E; Mattei, I R

Source: The American review of respiratory disease; Sep 1969; vol. 100 (no. 3); p. 388-390

Publication Date: Sep 1969

Publication Type(s): Journal Article

PubMedID: 5810810

Database: Medline

23. Diffuse fibro-leiomyomatous hamartomatosis of the lung.

Author(s): CRUICKSHANK, D B; HARRISON, G K

Source: Thorax; Dec 1953; vol. 8 (no. 4); p. 316-318

Publication Date: Dec 1953

Publication Type(s): Journal Article

PubMedID: 13122663

Database: Medline

Strategy 239179

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5	EMBASE	exp HAMARTOMA/	10985
6	EMBASE	exp "LUNG DISEASE"/	1139310
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