FRACTURE OF THE PATELLA

AN ORIGINAL METHOD OF RETAINING THE FRAGMENTS IN APPOSITION

JOHN A. WYETH, M.D., LL.D.
Surgeon-in-Chief to the New York Polyclinic Medical School and Hospital
NEW YORK

For the last three years, the following simple and successful method has been employed in recent cases of ordinary transverse fracture of the knee-pan:

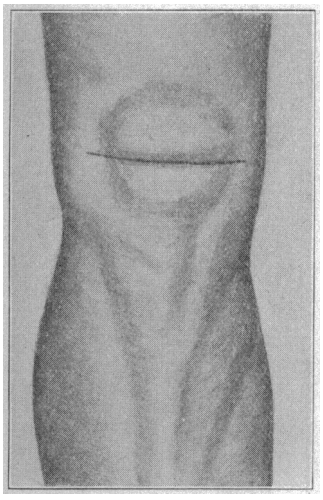

Fig. 1.—Line of incision across the middle line of the sulcus due to separation of the fragments.

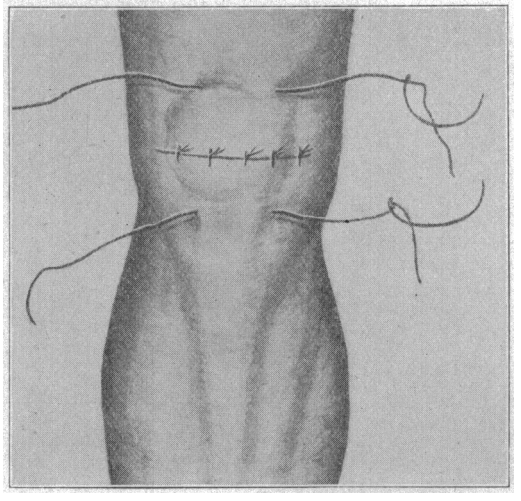

Fig. 2.—The retaining sutures of linen inserted and the incision closed, after removing the clot and reuniting the torn edges of periosteum.

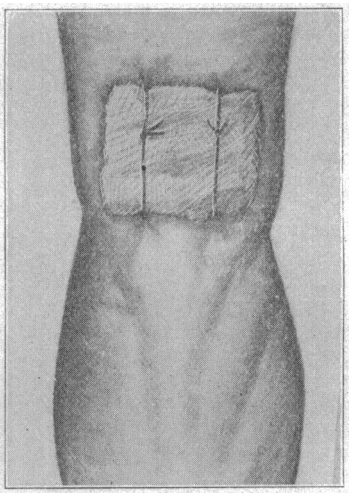

Fig. 3.—The dressing applied and the retaining stitches tied.

The edges of the fragments are exposed by a transverse incision over the center of separation, and the intervening clot washed out with reasonably hot salt solution, a syringe being used with as much force as is necessary to cleanse thoroughly. A gentle swabbing would suffice, but water gives a minimum of traumatism.

The opposing frazzled edges of overhanging connective tissue are now carefully stitched with a continuous, very fine linen suture, and the skin incision closed with running chromicized gut.

The holding device is as follows:

A strong quarter curved needle (Hagedorn by preference) threaded with extra large linen (No. 5) is carried across the lower border of the lower fragment, dipping greedily into the substance of the ligamentum patellae, just along its expanded attachment to the patella.

The points of entrance and exit of this needle should be about 1¼ inches apart, and the thread ends left 8 inches long.

The same maneuver is practiced along the upper edge of the upper fragment, the needle going well into the quadriceps extensor insertion, but not entering the bursa beneath this tendinous expansion.

Two strips of sterile gauze are now laid over the incision, and over these are tied very firmly, as one would tie one's shoestrings, the upper and lower ends of the opposing threads. In this way, not only are the fragments held in perfect contact, as no separation by muscular contraction is now possible, but also they cannot be tilted, or override.

A plaster-of-Paris cast is applied over all, from the ankle to near the groin, and the patient kept in bed for a week, with the foot elevated on a pillowed chair.

After this, locomotion on crutches is permitted *ad libitum*. The dressing is not disturbed for six weeks, when the threads are removed, and then slight passive motion is made, while the fragments are very strongly supported. The cast is readjusted, and there is a repetition of this two weeks later, and again, two weeks further on. The knee should be guarded from overstrain for at least six months, as a common-sense precaution. The danger of ankylosis is nil.

Fig. 4.—Roentgenogram one year after operation. Extreme flexion; function normal.

I have always done this operation with ether anesthesia. If done with novocain, the holding threads should first be inserted, as an assurance against possible involuntary contraction of the quadriceps extensor.

Figure 4 shows the result one year after operation. The function is perfect.

244 Lexington Avenue.

Industrial Accidents.—A conservative estimate of the economic loss in this country through industrial accidents places it above a quarter of a billion dollars each year. This is more than two million workmen could earn in twelve months at $4 a day.—From an address by J. Kirby, Jr.