

Confined to bed, suffering from pain in the joint, chiefly at night, and with "startings" of the limb; is feverish and has little or no appetite. The joint is much swollen, slightly flexed and rigid; the condyles of the femur are expanded, but the swelling is chiefly due to thickening of the synovial membrane; in two places, one above and one below the patella, the swelling is prominent and soft, and gives the impression of fluctuation; the limb is much atrophied; the lameness and swelling have been coming on for some months. Father and mother living; a brother died of phthisis three years ago. Limb to be thoroughly scrubbed and washed, and wrapped during the night in a towel wrung out of a 1 to 1,000 corrosive sublimate solution.

9th.—Under chloroform a free incision was made into the bulging swelling above the patella; on pressure being applied, a yellow-greyish, jelly-like mass, three inches in diameter and three-quarters of an inch in thickness, was forced out of the wound; additional incisions were made on each side of the patellar ligament, and through them the bluish-grey thickened synovial membrane was thoroughly scraped with a sharp Volkman's spoon and with the fingernail, and the *debris* removed by flushings of 1 to 1000 sublimate solution. Finally, the joint was filled with a 10 per cent. mixture of iodoform and glycerine, and then thoroughly moved to bring the mixture into immediate contact with all its recesses; drainage tubes were inserted, the wounds covered with Lister's protective, and the joint enveloped in a large and thick moist sublimate gauze dressing. Limb supported on a posterior straight splint.

10th, 10.30 a.m.—Temperature 99°; dressed; skin blistered from the dressings; joint syringed with a 1 to 1000 sublimate solution; tubes replaced; skin powdered over with boracic acid powder, and a well-squeezed out moist sublimate gauze dressing applied. 9 p.m., temperature 101°.

12th, 11 a.m.—Temperature 98.2-5°. Very little discharge on dressings. A permanent posterior splint was applied with paraffine bandages.

The case was subsequently attended to by Dr. McCabe.

July 27th.—Had been using the limb for some time; the leg can be almost completely extended and can be flexed to a right angle; the limb is almost as large as the sound one; he engages in the games of the other boys, and says that his general health is perfectly good.

CASE II.—*Very severe injury to knee from circular saw. Recovery, with perfect movement.*

July 20th, 1891.—J. V., aged 14, a patient of Dr. McGregor of Waterdown. Seen between two and three hours after the accident. Joint

completely exposed by an oblique wound from the inner side upwards and outwards, with serrated edges extending from side to side in front, made by kneeling on a revolving circular saw. Patella sawn through transversely a little below its middle; the anterior half of the inner condyle cut through vertically; and only attached above to the soft parts by a narrow strip of periosteum; there is also a short superficial cut with serrated edges at the level of the tibial tuberosity; no hæmorrhage. Dr. McGregor had removed one or two small pieces of bone which he had found lying loose in the joint. After thorough cleansing the almost separated portion of the condyle was removed, the patella drilled and sutured with thick prepared Chinese twist, and its sheath stitched with catgut and the skin wounds with silk sutures, after the insertion of a drainage tube on each side at the most dependent points of the exposed surface; wounds dressed with protective and moist gauze, and the limb supported on extemporized Watson's excision splint, made from Gooch's splinting, which was kept in place by paraffin bandages; limb placed in a Salter's cradle.

21st, noon.—Rested pretty well; had complained of some pain in abdomen and on outer side of joint; pulse 86, temperature 100.1-50; dressings saturated with bloody serum; wounds quite quiet; redressed; case left under Dr. McGregor's care.

Aug. 4th.—Dr. McGregor reports by letter: "My patient is doing well; there is practically no discharge, except a little blood at the corners of the wounds which were left open; there has been no pus or smell and lately no puffing or swelling; there never was any discharge from the first from the drainage tubes. I have been shortening them little by little, and one is now away; the stitches are all out; wounds have united by first intention. Pulse kept about 76; temperature 98° to 99°; sleeps well and eats well, but always complains of having had a little pain during the day."

Aug. 16th.—Seen to-day. Wounds healed with dry patellar suture hanging out of the middle of the scar; limb still in splint. Early this spring (1892), he walked into Dr. McGregor's office with a friend, and at first I did not know which was the old patient. He said that he kept pulling at the ligature every day till it came away two months or so after the accident.

CASE III.—*Ruptured ligamentous union of patella; Lister's operation; recovery; good result.*

A. D., aged 45, admitted into the City Hospital 31st December, 1891. In September last she fractured her right patella; result, ligamentous union; about the 1st of November she began to go about and to do her work. A week since she fell again and hurt the same knee, rupturing the ligamentous band of union.