A CASE OF EXPOSURE BY OPERATION OF THE INTRAPELVIC PORTION OF THE GREAT SCIATIC NERVE.

BY LIEUTENANT H. E. RAWLENCE.

Royal Army Medical Corps.

1916. Rifleman S., 1190, aged 23, service five years. Patient was wounded in France on November 6, 1915. He was admitted to the British Military Hospital, Brockenhurst, on November 17, 1915. Whilst in a semi-upright position he was struck by a rifle bullet on the left buttock opposite the anus one inch from the anal fold. On admission to this hospital the wound of entrance was healed. The accompanying X-ray picture, which was taken from behind looking forward, shows the bullet behind the head of the femur. He had had a certain amount of pain in the buttock, but at the time of admission was able to walk comfortably, and was not suffering any inconvenience from the presence of the bullet. When operation was suggested, he said that the bullet's location and extraction, he had been told, would be difficult, consequently he preferred to have it left alone. He was sent to an auxiliary hospital, Class "B." He returned on January 16, 1916, from this hospital and stated that after a walk of between six and eight miles he experienced a dull ache deep down behind the hip-joint. He had had this same pain on walking ever since. He also complained of some sharp stabbing pain behind the left ankle-joint, which became worse at night and in other ways suggested neuritis of the posterior tibial nerve. Another X-ray examination now showed that the position of the bullet had slightly altered. Its exact location could not be determined owing to the great thickness of the patient's thighs. The clinical symptoms made it clear that the bullet was most probably close to the left great sciatic nerve.

Operation.—January 17, 1916. Chloroform was administered by the open method by Lieutenant W. M. Jackson, R.A.M.C. The patient was placed on his right side, and the left knee was slightly flexed. The incision made was about ten inches in length. It was made one and a half inches posterior to that usually made in Kocker's modification of Langenbeck's incision for the posterior excision of the hip-joint. The gluteus maximus was split in its length, exposing the point of exit of the great sciatic nerve from the pelvis, and the muscles on which it lay. The accompanying diagram is a sketch of the structures exposed. The nerve was now carefully examined and the bullet was located inside the great sacro-sciatic foramen behind and above the pyriformis muscle. The bullet was now pressed towards the hip-joint by introducing the finger behind the sciatic nerve lying under the pyriformis muscle. The point of the bullet emerged between the pyriformis and gluteus medius muscles as shown by the x marked in the diagram. The parts near the bullet looked somewhat
Diagram of parts exposed by Kocher's model of Langenbeck's posterior incision for excision of the hip joint.

unhealthy, so a drainage tube was inserted. The gluteus maximus was drawn together by two catgut stitches, and the skin incision closed. The drainage tube was removed on the second day. The wound healed by first intention, and the stitches were taken out on the tenth day. Eight days later the patient was found keeping goal on the football field. He was discharged to furlough on February 21, 1916, in the best of health. The bullet was the ordinary German mauser. It was flattened on one side and was therefore probably a ricochet.

**DISCUSSION.**

This man had passed through several hospitals before arriving in England, and I gather from the reports that the position of the bullet was thought to make its removal difficult. As far as I can make out in the literature the great sciatic nerve has very rarely been exposed or operated on above its exit from the pelvis. Von Baracz operated on a case of sciatica and freed adhesions at the great sacro-sciatic notch. Bardenheuer trephined the ilium and enlarged the anterior spinal foramina to relieve pressure on the roots of the great sciatic nerve. These isolated operations show that some surgeons have gained access to the nerve from behind the hip-joint. The present war has produced many new problems in surgery, and amongst them the question of access to the pelvis for the removal of foreign bodies, and also to secure posterior drainage. Before the year 1900 excision of the hip-joint was more frequently performed than it is now. Langenbeck's incision or Kocker's modification of it was used. It has the great advantage in advanced cases of disease in allowing for posterior drainage. I should like to emphasize the value of this incision. It exposes at once without any cutting or destruction of muscles the whole of the structure lying posterior to the hip-joint, including the great sciatic nerve over about four inches of its course. With very slight pressure above or below the pyriformis muscle the finger can be pushed into the pelvis, towards the front of the sacrum or forwards to the posterior surface of the acetabulum, and the interior of the pelvis can thus be explored. In this case the operation occupied twenty minutes, and though the parts exposed were at a depth of eight inches and over from the surface, the patient had no symptoms of shock, and made an uninterrupted recovery.

I have to express my thanks to Lieutenant-Colonel W. Alpin, I.M.S., for leave to publish this case, for his assistance at the operation, and in the preparation of these notes.

**REFERENCES.**

V. BARACZ. *Centralbl. Chir.*, 1902, p. 250.