displaced position by means of the untorn fibrous attachments of the ligamentum patellae along its inner side. The wound was closed without drainage, and the patient left the infirmary on June 5th. Nothing could be more satisfactory than the immediate result of mobilizing the lower fragment, whilst the functional result in time was also satisfactory.

I took a skiagraph of the knee about a fortnight after the operation, and Mr. S. W. Allen kindly made from it the outline here reproduced in order to show the new position of the tubercle of the tibia, and the limitation of its range of displacement upwards towards the knee-joint.

Lord Lister's article is a notable contribution towards the conservative treatment of the hitherto masterful quadriceps extensor in the class of cases described by him.

A CASE OF ECTOPIC GESTATION WITH UNUSUALLY EARLY SYMPTOMS.*

By E. A. SEARLE, B.A., M.D., B.Ch., B.A.O.Dub.

In the BRITISH MEDICAL JOURNAL of May 25th, 1907, Dr. Nigel Stark reported a case of unusually early rupture of the gravid tube. In his case menstruation ended May 11th, and rupture occurred, without any previous sign or symptom, on May 28th—seventeen days later. He dated conception from May 19th, only nine days before rupture. My case is chiefly interesting from the very early occurrence of symptoms.

History.

A healthy 2-para of 25 years, married three years, had a normal period of five days ending June 15th, 1906. The earliest possible date of conception was June 17th. On July 1st (fourteen days later) she was seized with a very severe attack of spasmodic pain in the lower right abdominal region, which began with vomiting and lasted from two to three hours. The temperature was subnormal, and the pulse fell to 60 from its usual rate of 80 *circa*. There was a moderate amount of collapse with greyish pallor. In the region of the right iliac fossa tenderness was very marked, but no muscular rigidity was present. Her condition rapidly improved and she was getting about the house again, when a similar attack occurred on the evening of July 4th. Additional features on this occasion were painful micturition, and a slight blood-stained vaginal discharge beginning shortly after the pain ceased.

Next day I made a vaginal examination and found a distinct fullness, with marked tenderness in the right fornix and behind the uterus. The cervix seemed to be shorter and more flattened out than usual. By this time the vaginal discharge had ceased, but defaecation became painful, and so continued to the end of the illness. After a few days she was fit again for household duties.

On July 9th—the day menstruation was due—a chocolate-coloured vaginal discharge showed for the first time; it was rather scanty, and only lasted a few hours. This was the first sign that seemed to confirm my suspicions of ectopic gestation.

Three days later—July 12th—a discharge began and continued like an ordinary severe "period" to July 19th. During this a third attack of abdominal pain occurred on July 16th, less severe, but more noticeably spasmodic in character, and not attended by vomiting as the previous attacks had been.

Next day there was a similar seizure, during and after which some blood clots came away. On examination of this discharge I found distinct decidua remains; this discovery was sufficient to confirm my fears.

On July 19th the discharge ceased. By this time the patient began to feel and to look very miserable, and was losing weight and strength.

On July 26th the chocolate-like discharge again came on, and from this date continued almost daily to the end of the illness. I now found, on vaginal examination, that the swelling in the right fornix was larger and more definitely rounded, distinct from the uterus, and seemed to be lower down and consequently more easily within reach than at the previous examination. Tenderness about the swelling was so marked and pain caused by the finger so acute that a complete investigation was not attempted.

Having made arrangements for the journey to Capetown—10 miles by road and four hours by train—for operation, she travelled very comfortably on July 30th, and arrived apparently none the worse.

Operation.

Next day she was seen by Mr. S. W. F. Richardson, who diagnosed a right tubal pregnancy, and advised its prompt removal by operation. This he did on August 2nd. Through a 2½-in. incision in the middle line, midway between the pubes and umbilicus, the right tube and contents were brought out

after slight delay due to some trifling adhesions, ligatured, and removed. Included with the tube was the right ovary, which contained a small cyst about the size of a large Graafian follicle and a well-marked corpus luteum. There was no free blood or clot in the abdominal cavity. The left ovary and appendages were quite healthy.

After-History.

With the exception of unusually severe and prolonged chloroform sickness, the patient had an uneventful recovery, and now, after a lapse of more than a year, says she never felt better in her life.

In commenting upon this case I would chiefly call attention to the unusually early date of the onset of symptoms—namely, fourteen days after the earliest possible date of conception. In Dr. Stark's case rupture occurred seventeen days after a normal menstrual period, but, according to his patient's most emphatic assertion, nine days after the earliest possible date of conception. The only reference to such early rupture that I can find in the textbooks is in Hirst's *Obstetrics* (1906). He says rupture may occur as early as the fourteenth day, and that in two of his own cases it happened no later than that date.

At the annual meeting of the British Medical Association at Toronto in 1906, Professor Ross read a paper on 70 cases of ectopic gestation upon which he had operated. In this series I can find no mention of symptoms noted as early as those in my case, and in only 5 of the 70 was operation done before bleeding had occurred into the abdomen.

No doubt bleeding within the tube is answerable, together with the embryonic growth, for every attack of paroxysmal pain, but it is a very interesting problem to determine why haemorrhage should occur so early at all.

Dr. Herman, in the last edition of *Diseases of Women*, writes:

Dr. Russell Andrews and others have shown that in tubal pregnancy the ovum develops in the wall of the tube, not in its lumen; the trophoblasts eat their way into the wall of the tube, as they do into the uterine mucosa in normal pregnancy. The ovum comes to lie in a cavity bounded at one part by muscular tissue and peritoneum. . . . At another by muscular tissue and mucous membrane. During the first seven or eight weeks the trophoblasts go on eating up tissue, and in the process they open up vessels so that haemorrhage takes place. This haemorrhage causes tension within the cavity and then rupture. This rupture may be on the peritoneal aspect of the sac, or it may be on the mucous aspect. If the latter, the ovum will escape into the lumen of the tube, and blood along with it.

That this latter mode of rupture was what occurred in my case an examination of the specimen prepared by Dr. G. W. Robertson, Government Pathologist, will show. The specimen itself gives no indication of pre-existing tubal disease, and the patient's history was one of marked fertility—three times pregnant within as many years.

Dr. Paul Kroemer, of Giessen, by a series of over 4,000 sections of the Fallopian tube, put together upon Born's system of reconstruction models, has shown that the diverticula, formerly considered pathological conditions, are, in reality, to be found in the normal state.

In my patient menstruation from its first appearance was always accompanied by very severe spasmodic pains coming on with the flow, lasting some hours, and causing prostration. On these occasions the chief seat of pain was the left ovarian region.

In her 17th year and while at school in Belgium the monthly attacks became so serious that an operation was done, which, from the appearance and site of the scars left, was, doubtless, Alexander's operation for shortening the round ligaments for the cure of uterine retroversion.

From this date, nearly eight years ago, relief has been complete and enduring.

THE Board of Education have been informed through the Foreign Office that the Sixteenth International Congress of Americanists will be held under the presidency of Baron Weckbecker in Vienna at the University from September 9th to September 14th, 1908. The object of the Congress is to promote scientific inquiries into the history of both Americas and of their inhabitants. Communications may be oral or written, and may be in one of several languages, English included. For further information application should be made to Herr Franz Heger, Vienna (Austria), I. Burgring 7. A programme will be issued early in the summer.

* Extract from a paper read before the Capetown Branch of the British Medical Association.