the pelvic brim. Nowhere did its posterior wall pass into the pelvic cavity.

A second large cyst occupied the upper abdomen; from it I took 2½ pints of fluid similar to that from the first cyst.

I detached the upper cyst from the diaphragm, to which it was adherent on the left side to within a couple of inches of its posterior margin. The rest of this cyst wall was free, but in contact with the intestines. The omentum was free, but crumpled up into a small ridge or oblong pad, and was pushed up into the left hypochondriac region. The cyst rose high up under the left costal margin.

At the root of these cysts were two smaller ones—one on either side, each about the size of a cocoanut. All four cysts sprung from a thick fibrous base, mushroom-shaped, and about 3 inches in diameter. From the under surface of this base ran a twisted pedicle about 3 inches long and about the thickness of a thin umbilical cord.

The total amount of fluid obtained from the cysts were 18 gallons, and I estimate the weight of the tumour at 185½ lbs.

The uterus and left ovary were normal; the abdominal wall above the level of the umbilicus was very thin. Nowhere could I find much fibre in it. I removed the tumour, and when all the cysts were empty the mass weighed 5½ lbs.

Both kidneys were normal; the spleen slightly enlarged; the liver was displaced upwards, so that the highest point was on a level with the upper border of the third rib in the nipple line. The lower (anterior) border of the liver was very thin, and about 2 inches above the costal margin.

In deference to the relatives' wishes I did not open the thorax in the usual way, but by opening the diaphragm, which was highly arched, I found that the heart was displaced towards the middle line, the apex being rotated forwards, and was situated at a point in the middle line of the sternum level with the junction of the fourth rib; the heart was small and firm. Both lungs were cramped up in the thorax, their apices being higher than usual above the level of the clavicles; there were no pleural adhesions.

A COMBINED RECTO-VAGINAL OPENING IN THE HUMAN SUBJECT.

By J. G. MODLIN, M.D., B.S.,
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In September, 1899, I was asked to operate on Mrs. X. for deformity in the perineal region. On examination I found a well-formed perineum, and a slight dimple in the position of the anus, but no rectum or sphincter. The vulva seemed normal; but on separating the labia a movable septum was

seen, which proved to be formed by the posterior vaginal and anterior rectal walls. It was about one-sixteenth of an inch in thickness, and was freely movable from before backwards. The condition was not one of cloaca. The vagina and rectum were, excepting at their orifices, distinct. But the urethra, vagina, and rectum all opened into one common vulva. The vaginal and rectal tubes may be compared to the two barrels of a double-barrelled gun, the muzzles of which were seen on separating the labia.

Mrs. X. was 24 years of age, had been married four years, and had had two abortions. The condition described had given rise to no symptoms beyond obstinate constipation, and the unpleasantness due to the abnormality. The constipation had probably been to some extent caused by the patient putting off the act of defæcation as long as possible, owing to the pain and discomfort produced. The act usually took about half an hour, caused such severe pain that the patient nearly always fainted, and always caused hæmorrhage.

After the usual preparation, the patient being anæsthetised with chloroform, I first cut through the perineum in the middle line from the posterior angle of the vulva to the normal situation of the anus. I continued the incision upwards through the fibrous tissue filling in the space between the rectum and the coccyx. I then separated the posterior wall of the rectum for about two inches. The next step was to dissect up the recto-vaginal septum, thus separating the two passages. The rectum was then detached from the surrounding tissue, so that its lower end was freely movable. I brought it backwards through the opening I had made to its normal situation, and sutured it with fine silk sutures posteriorly and laterally to the skin of the perineal incision. I then again brought to the middle line the two flaps produced by the first incision to

Fig. 2.

form the new perineum, and sutured them together with silk sutures, deep and superficial. The posterior border of this new perineum was sutured to the anterior wall of the rectum, thus completing the new anus; and the anterior border of the new perineum was sutured to the raw surface of the posterior vaginal wall, thus completing the vagina. The case did well, the temperature never rising above 99.8° for twelve days after the operation, when constipation proved very troublesome; there had been a motion every day, but scybalous masses formed, so that chloroform was again administered, and the scybala broken down with a Volkmann's spoon. From this time the patient made an uninterrupted recovery. The present condition is most satisfactory. There is a good, firm perineum an inch a-half long, the vagina is perfectly normal. The constipation is greatly improved and is still improving under treatment. There is no hæmorrhage with defæcation, and the act is easily performed.

There is perfect control over the bowel, so that I believe the muscular fibres of the rectum have undertaken the functions of a sphincter. I publish this case as I have never seen reported or heard of one in which the condition of the parts was precisely similar.

A NOTE ON A SERIES OF CASES OF EPIDEMIC CEREBRO-SPINAL MENINGITIS.

BY HENRY HANDFORD, M.D., F.R.C.P.,
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It may be of interest to give a very short account of 5 cases of the above disease seen during the past year. In addition, during the last few months, I have heard of, but not seen, 5 others, 3 of them with suppurative of the choroid. The cases, though occurring sporadically, are indistinguishable clinically from the epidemic disease, but there can be no very extensive and fatal epidemic as no unusual number of deaths from meningitis are being registered. The cases form a striking group with many and characteristic points of resemblance, and differ essentially from anything I have been accustomed to see. Three were hospital patients and 2 were seen in consultation. The ages were 3, 4, 5, 14, and 22 years. One proved fatal after fourteen weeks' illness, and a necropsy was obtained; the others recovered or are still under treatment; one was complicated by suppurative choroiditis. The most prominent symptoms common to all were:

1. Rapid, if not actually sudden, onset, without injury or previous failure of health.
2. Fever—the temperature rose at once to 102° – 104° and very slowly subsided, sometimes showing distinct and regular intermissions. In 3 cases (1 fatal) the temperature remained normal for weeks without any other sign of improvement.
3. The intensity of the pain in the head and neck, aggravated by the slightest movement.
4. Marked retraction of the head.
5. Muscular hypertonicity, twitching or rigidity. (The man, aged 22, was sent into the hospital as a case of tetanus).
6. Extreme and rapid emaciation.
7. Tendency to relapse and to intermissions.

Lumbar puncture was not practised during life. In the fatal case some turbid fluid was removed by lumbar puncture two hours after death and sent away for examination, but owing chiefly no doubt to unavoidable delays, the results by cultivation and otherwise were negative.

There was distinct exudation over the under-surface of the cerebellum, pons, and medulla. It differed from that most commonly found in tuberculous meningitis in position, not extending so far forwards and not spreading to the Sylvian fissures. No tubercles were detected in the exudation or in the viscera. The hemispheres appeared normal. The ventricles were greatly distended, and contained about 10 ounces of slightly turbid fluid. The choroid plexuses were adherent to the ependyma of the ventricles. On removing the spinal cord, a blood clot was found between the dura and the bone as far as the eighth dorsal vertebra. At the ninth dorsal, there was a small hæmorrhage beneath the dura. The membranes were intimately adherent to the cord in the cervical and lower dorsal regions.

The cases differ in their clinical course very markedly from tuberculous meningitis. The onset is more acute, the retraction of the head much more marked, the duration of the disease much longer, and percentage of recoveries far greater. None of the 5 cases had herpes, and only 1 showed some patchy erythema.

Clinically, the distinction between individual cases of posterior basic meningitis, sporadic cerebro-spinal meningitis, and epidemic cerebro-spinal meningitis seems impossible. Bacteriologically, the distinctions between the diplococcus meningitidis intracellularis found in cerebro-spinal meningitis and that found in posterior basic meningitis seems chiefly one of degree, shown by slight cultural variations and less or greater virulence in inoculation experiments.

As regards treatment, morphine was given in full doses to relieve the intense pain. In 3 cases potassium iodide appeared to do good; in 1 it was evidently prejudicial, and in

1 without distinct effect. Morphine appeared to do good beyond the mere relief of pain.

CASE I.—H. G., aged 22, a coal miner, admitted August 12th, 1899, in a state of active delirium, with temperature 103° . He was at work thirty-six hours before admission. He was seized with pain at the back of the head about noon on August 11th, and rapidly became worse. His previous health had been good, and the only illness measles in childhood. He had a blow on the head eight weeks ago, but it did not disable him. After admission he suffered the most intense pain in the head and neck, causing him to scream and roll about. The head was greatly retracted, the neck muscles rigid, and there was slight rigidity of the limbs. No rash or affection of joints, and no discharge from the ears. The knee-jerks were present, the pupils dilated, equal, and reacting to light; no ocular paralysis, fundi normal. He passed everything into the bed, but was never unconscious. The temperature was very variable. For the first three weeks the extremes were 104.2° and 98.6° , and the average about 101.8° . For the second period of three weeks about 1° less, from the sixth to the ninth week about 1.5° still less, and after nine and a half weeks the temperature remained normal. He reached an extreme degree of emaciation and mental apathy. After seventeen weeks illness he was discharged to the convalescent home practically completely recovered in every respect. He was treated by hypodermic injections of large doses of morphine for the first three weeks, and by potassium iodide with mercury, from all of which he appeared to derive much benefit, as he was not so well when they were omitted.

CASE II.—A girl, aged 5, was admitted December 19th, 1899. Her illness commenced somewhat suddenly eight weeks previously with headache, vomiting, and some fever. On admission she was very emaciated, had bedsores over each trochanter, and lay curled up in a torpid, but not unconscious, state, with very marked and persistent retraction of the head, which continued during the whole illness, and with some tonic flexor spasm of the limbs. She never complained of pain in the head (or elsewhere), but frequently used to scream in a purposeless way. She always understood what was said. There was some strabismus, but no optic neuritis. The temperature reached 101° on three occasions, and was 100° on eight other occasions, but was generally normal or subnormal. Her appetite was very variable. There was no sickness after her admission to the hospital. She gradually became more feeble and emaciated, and died six weeks after admission and fourteen weeks from the commencement of her illness. For post-mortem condition see the general report.

CASE III.—L. T., aged 4, admitted April 2nd, 1900. No previous illness; never any discharge from ears. Illness began during the night, seventeen days ago, with "pains all over," headache, and vomiting; he had appeared quite well when put to bed. Retraction of the head was noticed on the third day of the illness. During the second week pain in the head and neck continued, but vomiting ceased.

On admission he was well nourished, lay curled up in bed with his knees drawn up, head greatly retracted, and the muscles of the back and neck rigid. He complained of headache and pain in the neck, and put his hand to the back of the neck. The abdomen was somewhat retracted, pupils small but equal, knee-jerks absent, skin reflexes present. The mind seems clear; he asks for what he wants and understands what is said to him. Temperature varied between 99° and 103.6° , and pulse from 120 to 140.

On April 5th there was slight conjunctival injection; on the 6th that had improved; the fundi were examined with the ophthalmoscope, and found normal. April 13th, the left conjunctiva became rapidly swollen and inflamed; on the 14th there was chemosis, the pupil was contracted, iris bulged forward, margin irregular, and only a yellow reflex was obtained with the ophthalmoscope. The patient was very kindly seen by Dr. Laws, who diagnosed suppurative choroiditis.

June 19th. The febrile attacks have become less and less severe, and have occurred at longer intervals; the temperature has now been normal for a fortnight. The child is extremely emaciated and feeble, but conscious. The left eye is much shrunken. There have been four attacks of opisthotonos, and frequent tremors with muscular twitchings, especially of the arms, but these seem now to have ceased, and there is no longer rigidity of the limbs. Recovery is still very doubtful.

CASE IV.—A robust child, aged 3 years 4 months, good family history. Quite well till 4 P.M. on May 20th, when he complained of headache, and shortly afterwards vomited; temperature, 10 P.M., 103.5° . He screamed with pain in the head. May 21st: Temperature, 102° ; vomited; pain very severe at times; took scarcely any food. May 22nd: At times semicomatose; at others frantic with pain. At midday very marked retraction of the head began. I saw him, in consultation with Dr. Stafford, in the evening, when the temperature was 99° , pulse 80; the head was very retracted, and back slightly arched. He lay on the left side, and cried if disturbed. Cerebro-spinal meningitis was diagnosed, and morphine, with potassium iodide, advised. After a few days the symptoms abated, and he was doing well. A fortnight later he had a relapse again with sudden onset, and a return of all the symptoms. After improving so as to be ready to come downstairs he had a second relapse, still more severe, but gradually recovered, and now (June 26th) seems quite well.

CASE V.—A boy, aged 14, seen in consultation with Dr. Kenway Williams. June 15th, 1900. Illness commenced abruptly seventeen days with pains in the back and general illness. A few days later pain and swelling of the foot was noticed, and on May 24th Dr. W. opened a foul abscess in the cellular tissue beneath the os calcis; temperature 104° . May 26th. Muscular twitchings arching of back, and violent pain in the head causing patient to scream. When seen on June 5th the foot was soundly healed, and there was no fresh suppuration anywhere. The temperature had remained from 103.8° to 104.5° in the mornings and about 0.5° less in the evenings. Pains in the head very violent but only last a few hours at a time. Does not like the head to be moved in the slightest; pain in the back with some arching; occasional vomiting; eyes and ears normal; pulse 112; mind clear; much emaciation. To-day, June 26th, I hear from Dr. Williams that the patient is extremely emaciated, all the symptoms are gradually abating, temperature intermits and is much lower. During the intermissions he refuses food and is difficult to manage, but during the febrile attacks he takes milk well. There has been much trouble with retention of urine. The patient is not yet out of danger. There has been a very partial erythematous rash.