squeezed about one dozen times the whole organ was felt to suddenly harden, following which a strong wave of contraction from above downwards occurred. Massage was immediately discontinued. After about one second another and more powerful contraction occurred, followed by contractions of about equal intensity at regular intervals of probably about one second. The pulse was then felt by Dr. Ramanna and found to be 60 per minute and of quite good pressure and expansion, all things considered.

I then re-washed my hands and rapidly stitched up the abdominal wound with through-and-through linen thread sutures and applied a collodion dressing and bandage. Dr. Ramanna and Dr. Gupta, assistant surgeons, were present throughout the operation. The administration of chloroform was discontinued from the time the respiration ceased, although after suturing the abdominal wound the Whitehead's operation was rapidly finished off. The patient appeared to be quite unconscious until after the dressings had been applied to the anus when he began to groan. An injection of 10 minims of liquor strychninæ was given hypodermically before he was removed to the ward, which operation was conducted with extreme care at about 3 P.M.—i.e., about two hours after the commencement of the anæsthetic. He was placed in a bed, the foot of which was raised about 1 foot and covered with two blankets. Fairly free, though not excessive, hæmorrhage had occurred during the Whitehead's operation before the cessation of respiration, at which time the patient had been under the anæsthetic for rather less than one hour.

I visited the patient again at 5 P.M. and found the skin cold and the pulse 80, and of about the same volume and pressure as at the time of removal from the operating table. He was not completely unconscious as he tried to brush flies from his face and was very restless. I then gave him an intravenous injection of 10 minims of liquor strychninæ and 8 minims of liquor morphinæ, and had hot bottles applied outside the blankets. At 8 P.M. Dr. Ramanna reported that he had completely recovered consciousness. He was given another injection of strychnine and the hot bottles were renewed. I visited him again at 11 P.M. and found the skin warm and moist; the pulse was 80 and of good volume and pressure. He complained of thirst and abdominal pain, and was told to drink as much water as he wanted, but did not drink any. He was perfectly rational.

On Jan. 6th the patient vomited twice in the morning but took and digested some milk. Strychnine was again administered hypodermically. Dr. Ramanna noted a good deal of surgical emphysema of the abdominal and lower thoracic wall, due no doubt to one movement of artificial respiration, made by a well-intentioned assistant just after the belly was opened. I was unable to visit the patient on the 6th.

On Jan. 7th he still complained of pain in the abdominal wound, but the skin in the neighbourhood appeared healthy and there were no signs of peritonitis. The pulse was 72 and of good volume and pressure. He was ordered Mellin's food, rice, and milk.

On Jan. 8th—i.e., on the fourth day from operation—the patient could both sit and stand up and complained of insufficiency of food, for which reason an increase in the quantity of rice administered was ordered. Abdominal pain was much less and the general aspect of the patient was healthy. The anal wound appeared to be nearly healed. The stitches were removed from the anal wound on the tenth day and from the abdominal wound on the fifteenth, the latter having healed by first intention except in one place where the skin edges had not been accurately adjusted. Convalescence was practically afebrile throughout, and the patient was in perfect health when discharged from hospital about the twentieth day after operation.

Remarks.—The case is reported as complete recovery under these circumstances is still rare. The total period of the heart's inaction, though not accurately timed, cannot have been less than one minute nor more than two minutes. The entire absence of suppuration in the abdominal wound and peritoneum, bearing in mind that the skin was not washed and all the other circumstances of the case, is noteworthy.

Bilaspur.

NOTES ON A CASE OF INTESTINAL OBSTRUCTION DUE TO TWO DISTINCT CAUSES.

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THE notes of the following case are of interest from the point of view of difficulty in diagnosis and of pathogeny.

The patient, a female, aged 56 years, was admitted to the Westminster Hospital from the Westminster Dispensary with a history of constipation and vomiting for three days. The vomit had become faecal. On admission the temperature was normal. The abdomen was distended and tympanitic; the patient complained of tenderness on palpation. On examination of the rectum the fingers encountered, high up, a large hard nodulated lump. This mass was quite immovable, covered by the rectal mucous membrane, and appeared to be outside the wall. The lumen of the gut was occluded. No hernial protrusion was to be found. Within half an hour after her admission an operation was performed by Mr. E. Rock Carling.

Operation.—With the intention of performing colostomy an incision was made in the left iliac region. On opening the peritoneum a quantity of clear fluid escaped, and several coils of greatly distended small intestine protruded in the wound. On passing the hand into the pelvis a mass of the size of a cocoanut was found almost completely filling the cavity. The lump was extracted with difficulty and found to be a subperitoneal fibroid which was attached to the uterus by a long pedicle; the pedicle was ligatured and the fibroid was removed. The uterus was beset with several small subperitoneal fibroids.

The large intestine from the sigmoid upwards was distended, but not to the same degree as the coils of small intestine that first presented in the wound. On tracing the gut from the cæcum upwards a Richter's hernia was found in the right internal inguinal ring. The portion of gut involved was situated at about the junction of the upper with the middle third of the small intestine. The piece of gut which was nipped was of the size of a shilling and was completely gangrenous, while for 5 inches on either side the intestine was paralysed and showed signs of commencing gangrene. In the neighbourhood of the hernia the peritoneal fluid was slightly turbid, and a small quantity of intestinal contents escaped at the seat of constriction. 14 inches of small intestine were resected, the cut ends were sutured, and a lateral anastomosis was made. A drainage tube was placed in the pelvis and the rest of the abdominal incision was closed.

Continuous saline infusion was given per rectum and strychnine and eserine were administered four-hourly. The patient did well until the third day after the operation, when peritonitis set in, and she died the same evening.

Necropsy.—Only a limited post-mortem examination was permitted. There was acute general peritonitis. The resection was situated six feet from the pylorus; there was no leakage at the site of the anastomosis, but the flow of water through the artificial opening was rather slow. The gut above and the stomach were very distended. Death was due to septicæmia.

Remarks.—The hernial sac was presumably of long standing; there is no evidence to show conclusively how long it had been occupied by the gut. Probably the course of events was as follows. Congestion or œdema of the fibroid in the pelvis compressed the rectum and pelvic colon until complete obstruction occurred; this led to distension, first of the large intestine and subsequently of the small intestine as far as the Richter's hernia; here the increase in size caused the invaginated gut to become strangulated and so caused a complete obstruction of the small intestine through paralysis of its wall and precipitated the vomiting which eventually became faecal. Such a condition was practically impossible to diagnose before laparotomy, as there was no sign of a hernia externally; moreover, the pelvic condition afforded an explanation of the symptoms.

The only alternative to anastomosis was the insertion of Paul's tubes beyond the limits of the gangrenous area, but considering the site—namely, high up in the small intestine

—it was judged that immediate anastomosis gave the patient the better chance of recovery.

I wish to thank Mr. Rock Carling for permission to publish this case.

A CASE OF FATAL HÆMOPTYSIS IN CHILDHOOD.

BY RALPH BROWN, M.B., B.S. LOND., &C.,
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THE patient, a girl, aged 3 years, was brought to hospital on account of having "a weak chest" and suffering from "worms," and was admitted. She had had no previous serious illnesses but had "always had a delicate chest." No family history of tuberculosis could be obtained. Worms had been noticed in the child's stools three weeks prior to admission, and there had been a falling off in her appetite during the same period. She had also suffered from a slight cough. On the day before she was taken to the hospital she had vomited.

On admission the patient was pallid and emaciated. Her temperature was 100° F. The movements of her chest were poor and the rate of breathing was unduly rapid, but the *alæ nasi* were not working. Her lips were slightly cyanosed. Percussion resonance was impaired on the left side. The breath sounds were harsh and, over the left lung, almost of a tubular character in places. Medium râles were audible all over the chest. The apex beat of the heart was in the sixth space 1 inch outside the nipple line. The heart sounds were feeble and irregular. The abdomen was distended and more resistant than normal.

The patient's general condition showed some slight improvement at the end of three days, during which time her temperature was of a very irregular type, varying between 99.2° and 101.8°. On the fourth day, while sitting up in bed, she had a sudden profuse hæmoptysis which proved immediately fatal.

Necropsy.—There was widespread tuberculosis affecting the glands of the abdomen and thorax, mostly of a chronic caseating type. The mesenteric glands were all large, some attaining to the size of a pigeon's egg and showing yellow caseation on section. The glands around the head of the pancreas and some in the mesocolon and the hilum of the spleen were in a similar condition, while all the mediastinal glands were affected, especially those at the tracheal bifurcation. Ulcers with tubercles were seen through the wall of the ileum, but there were none in the stomach or bladder. There was no peritonitis, though tubercles were scattered over the liver and spleen.

The pleura was a little adherent on the left side. There were universal pleuro-pericardial and pericardial adhesions, and on separating these numerous caseating tubercles were exposed. The left lung was the seat of diffuse tuberculous broncho-pneumonia, and in the lower lobe there was a cavity of about the size of a golf ball containing blood. The bronchi and trachea were filled with blood, and the hæmorrhage had extended to the stomach which was occupied by clot. In the right lung were small scattered tubercles. There was but little hypertrophy of the heart, and the endocardium was apparently normal. The larynx also was normal. On the right cerebral hemisphere internally were several patches of yellowish tubercle, and there was one in the white matter beneath the left island of Reil. The histological appearances were confirmatory of tuberculosis.

Remarks.—The most striking features of this case undoubtedly are that the immediate cause of death was a sudden profuse hæmoptysis and that this was the first and only attack thereof. Hæmoptysis, due to phthisis, is uncommon in children of such tender age and is very rarely fatal. Cavitation appears not to be very unusual in children, but difficult to recognise clinically. On this account perhaps it was formerly thought to be of less frequent occurrence than is actually the case. The presence of a cavity was not diagnosed in this instance. Cavities are usually small and of recent origin; this one was, comparatively speaking, of large size.

I am indebted to Dr. W. Murrell for permission to publish this case and to Dr. R. G. Hebb for access to pathological notes.

Headcorn, Kent.

Medical Societies.

ROYAL SOCIETY OF MEDICINE.

SECTION OF BALNEOLOGY AND CLIMATOLOGY.

Arthritis Deformans.—Climate of Egypt and North Africa and its Influence on Disease.

A MEETING of this section was held on April 20th.

The adjourned discussion on Arthritis Deformans, which was introduced at the preceding meeting on March 9th by Dr. R. LLEWELLYN JONES of Bath, was reopened by Dr. ARCHIBALD E. GARROD and Dr. P. W. LATHAM.

Dr. GARROD spoke in support of the view advocated by Dr. Jones in his opening paper,¹ that under the name of arthritis deformans we are in the habit of including several distinct morbid conditions, distinct alike in their pathological features, clinical course, and causation. He believed that the classification followed by Dr. Jones was as good a one as can be put forward at the present time. He devoted the greater part of his remarks to a discussion of the distinctive features of rheumatoid arthritis and osteo-arthritis respectively—features which are manifested on clinical examination, in radiograms, and at post-mortem examinations. It was pointed out that apart from the characters of the articular lesions there were conspicuous differences in the more widespread constitutional disturbances associated with the two diseases. Dr. Garrod maintained that osteo-arthritis could not be regarded as merely the later stage of rheumatoid arthritis; that since either disease was met with at all ages it could not be assumed that the distinctive features were due to the age of the sufferer, and he further maintained that in cases in which articular lesions of both kinds were simultaneously observed in the same patient careful inquiry afforded evidence that the two diseases were running concurrently. In conclusion, he pointed out that it was of much practical importance that the question of the identity or otherwise of osteo- and rheumatoid arthritis should be settled, since upon the answer to it would depend not only diagnosis but also prognosis and the treatment employed.—Dr. LATHAM referred to the theory which he had advanced in THE LANCET in 1901 (Vol. I., p. 998)—that rheumatoid arthritis was due to irritative and destructive lesions located in the spinal cord, and specially in the cervical and lumbar enlargements. He suggested that these lesions were due to irritative impulses starting either in the course of the afferent fibres or in the brain itself. Arguing from this theory, he claimed that treatment should be directed to the abatement of the spinal mischief, and that probably this could be most effectively done (the exciting cause being removed) by cupping or blistering the spine.—Mr. WILLIAM ARMSTRONG (Buxton) considered that if a specific bacillus originated the disease, vaccines and serums which had been used would have shown some definite results, whereas, so far as he could learn, they had proved inert. He strongly supported the view laid down by Dr. Latham—viz., that with the exception of gonorrhœal, strumous, and direct septic arthritis, all cases of this trouble were connected with defective nerve nutrition of the joints: that the nerve centres were apt to be disturbed by various reflex sources of irritation, such as gastro-intestinal toxins, utero-ovarian disturbances; oral, nasal, and pharyngeal irritation; and local traumatic conditions. Judged by clinical results he found this theory worked out well, for when the sources of reflex irritation were sought for and dealt with, and when counter irritation at each side of the spinal joint centres was steadily and systematically carried out, the most gratifying results had been obtained in a large number of cases. He found that the drastic treatment advocated by Dr. Latham was badly borne by many patients, so he now applied the electric cauterium after a preliminary anæsthetic ionisation with guaiacol and cocaine, which made the application of the cauterium almost, if not quite, painless.—Dr. SEPTIMUS P. SUNDERLAND referred to the curious frequency of arthritis deformans in women, as compared with men. He stated that Oliver Sunderland of Bexley believed this frequency was accounted for to a great extent by the

¹ This paper was published in full in THE LANCET, April 9th, p. 997.