and great coldness. After reaching home she fainted, and her condition became apparently so grave that Dr. Leakey was sent for.

On reaching the patient about 9 P.M. she was found lying in a low chair, in an almost completely unconscious condition, extremely pale and cold, the skin moist and clammy, the breathing rapid and shallow, and the pupils dilated; the back was stiffened, there were tremors and muscular twitchings, and the knee-jerks and other reflexes were greatly exaggerated; there was no appreciable pulse at the wrist; the apex-beat was slightly outside the nipple line, very feeble, and somewhat irregular; no bruit was detected; the temperature was subnormal, and there had been some vomiting. Hot brandy, strychnine, digitalis, and aromatic spirit of ammonia were administered, and the patient was lifted into bed. During the night there were repeated syncopal attacks and other indications of grave cardiac failure. The next morning the pulse was rapid and extremely feeble. The coldness of the extremities continued for three days, by which time a faint mitral systolic bruit was audible.

At the end of a week the patient was allowed to sit up in bed, and a few days later was lifted on to a couch. She went out of doors for the first time on Jan. 18th, and commenced walking with support a few steps at a time. She complained much of sleeplessness, "started" on dropping off to sleep, and had very disagreeable dreams. In the fourth week, during a short walk one morning, she had a severe syncopal attack and had to be taken home in a bath chair. On examination she was found very collapsed and pallid, with an irregular pulse and evidences of dilatation of the left heart. During the night there were frequent syncopal attacks, and the following day her condition was considered so serious that Dr. Price was called in consultation. He found her with a pulse of 90 per minute, regular, exceedingly small and feeble, and of low tension; apex-beat outside the normal; a faint mitral systolic bruit audible; knee-jerks slightly exaggerated, and suggested the following treatment. Much light nourishing food, strychnine and digitalis (later iron and arsenic), hypnotics, to be kept flat in bed for a week, gradually sitting up during the second week, to be lifted out of bed the third week if progress satisfactory.

The patient was seen again in consultation on March 8th. Progress had been so slow that she had not been allowed out of bed until March 7th. She was very feeble; pulse 80 per minute, still extremely feeble and small, though better than on the last examination; apex beat rather outside normal position; advised to be kept in bed for a week. She was carried into the next room on March 14th, and walked there on the 31st. A third consultation was held on that day, when the pulse was found to be somewhat stronger and fuller. The patient had suffered from constipation, and complained of a feeling of great weakness after the administration of aperients. Altogether the progress was very slow. On April 25th she went out for the first time again in a bath-chair. She began to walk on May 15th. It was not considered advisable to let her go home to Leicestershire until July 29th. On Oct. 26th she only complained of a feeling of exhaustion after considerable exertion, and of irritability on slight provocation. The pulse was then much larger and stronger, but still not quite up to the normal; there was a very faint localised mitral systolic bruit.

In our view it is beyond doubt that the case was one of cocaine poisoning and that the symptoms of the first two days were typical of that condition in its acute form—on the first day in a comparatively mild degree, and on the second in an alarming degree, when a fatal termination was very narrowly escaped. We believe that the heart muscle was severely damaged by the poison, and that this accounts for the subsequent slow progress and serious relapse. In our judgment it is a matter of very grave concern that according to the present state of the law it is permissible that anyone without a medical training necessitating an adequate acquaintance with the physiological effects, proper dosage, and poisonous manifestations of cocaine may administer this drug as a local anæsthetic. We think the operator should have possessed the knowledge that the symptoms of the 24 hours following the first extractions enumerated by the patient and her sister were certainly those of a comparatively mild degree of acute cocaine poisoning, in which case he would no doubt have adopted proper precautions, instead of which he admittedly administered a larger quantity of the drug.

TWO UNCOMMON FORMS OF DEFORMITY OF THE FEMALE GENERATIVE ORGANS, ONE CAUSING SYMPTOMS SIMULATING INTESTINAL OBSTRUCTION.

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CASE 1. *Absence of body of uterus and right appendages; presence of myoma and calcified dermoid.*—A married woman, aged 46 years, was admitted to the Royal Infirmary under my care when acting for Mr. P. Paterson on Sept. 21st, 1909, suffering from symptoms pointing to intestinal obstruction. A year previous to admission she had an attack of colic which lasted for a few days. On the present occasion a much more severe attack of colic came on two days prior to admission, the pain being referred principally to the umbilicus. Vomiting occurred twice on the first day of the present illness, while the bowels moved twice on the day previous to admission. Since then the bowels had not moved, nor had flatus been passed, notwithstanding frequent doses of castor oil and the administration of enemata. Blood had never been passed per rectum. There was frequency of micturition. The climacteric had occurred two years previously.

On admission the pain had become less severe, the temperature was 102° F., and the pulse 130, irregular, thready, and feeble. The abdomen was distended and tender to palpation, particularly over the left iliac fossa, where a large mass was easily detected on palpation, which was dull to percussion. Its mobility could not be tested owing to tenderness and abdominal rigidity. On vaginal examination the cervix was found to be normal in position and direction, but small and ill-developed. The uterine sound could not be introduced into the canal, but an ordinary probe went in for about an inch. The fundus could not be detected. The vaginal roof on the left side was occupied by a mass which was tender to palpation, while on the right side a hard rounded mass was detected which projected towards the rectum, and was easily felt on rectal examination. This mass was of about the size of a golf ball and was fixed.

Two enemata were given, but without result, and operation was decided upon. A median vertical incision was made below the umbilicus; the peritoneal cavity was opened and a quantity of sanguineous fluid was evacuated. A large tumour, subsequently ascertained to be fibromyomatous, at once presented. This tumour, roughly spherical in shape, and fully 5 inches in length, was freely moveable, being attached to a pedicle, also some 5 inches long, which had become twisted and was partially gangrenous. The pedicle was ligatured down close to what was supposed to be the serous surface of the uterus, and the tumour removed. The left Fallopian tube was also in a gangrenous condition and was also removed. The left ovary appeared normal but of small size. While this tumour doubtless accounted for many of the symptoms it did not explain the condition felt per rectum, and on passing the finger down along the course of the rectum a mass was now detected. On placing the patient in the Trendelenburg position and examining the parts it was found that there was no uterine body present, the peritoneum being reflected from the rectum on to the bladder much as in the male, save that on the left side there was an ill-developed broad ligament, with the gangrenous tube already mentioned, and fairly normal ovary. On the right side the appendages appeared to be entirely wanting, while a little to the right of the normal position of the uterus the hard mass referred to presented. The pelvic peritoneum, together with a subjacent layer of fibrous tissue overlying the tumour, was now incised and a portion of what appeared to be bone presented, which emitted a slightly hollow note when tapped. As my assistant said, the mass resembled a very small, well-ossified foetal head. Endeavours were made to remove the mass, which, after considerable difficulty, was shelled out, and was found to consist of a roughly spherical shell of osseous matter (Fig. 1), which contained an oily material at

first sight resembling pus. No hairs, teeth, or other tissue elements were present. This wound was packed for 48 hours, and the patient made an uninterrupted recovery save for slight transient jaundice for a few days after operation.

The intestinal obstruction in this case was probably due to the pressure of the fibromyoma on the bowel, but no evidence was obtained of any portion being damaged thereby. While the calcified dermoid certainly projected into the rectum, it must have done so for a considerable period previously, and hence its influence may probably be discounted.

It is interesting to note that this woman, according to her statement, had menstruated regularly. She was married, but naturally had no family. The presence of ovary and tube on the left side, albeit small, would probably account for the regular menstruation. Did the fibromyoma, which on section was perfectly solid and hard, with its pedicle represent the muscular substance of the uterine body which had begun to enlarge after the climacteric, and did the dermoid represent the right ovary? (Fig. 2.)

CASE 2. *Absence of the lower end of the vagina.*—A girl, 16 years of age, was admitted to the Royal Infirmary on Sept. 8th, 1908, suffering from what was diagnosed as appendicitis with abscess. Three days prior to admission she was suddenly seized with severe colicky pain referred to the umbilicus at first, but which later became located over the right iliac region. This pain was practically constant, and she was given morphia for its relief. She had a somewhat similar attack two months previously, which, however, was less severe, and lasted only for a few hours. On her way to hospital she vomited twice.

On admission the temperature was 99.2°F . and the pulse 120. The abdomen generally was not distended, but there was a distinct tumour mass in the right iliac region which was not only easily palpable, but visible. The abdomen in this region was rigid and the mass very tender to palpation. Percussion over the mass gave a dull note. The bowels had moved regularly, and the tongue was clean. Menstruation had not yet begun. A rectal examination revealed a large fluctuant swelling on the right side, a wave of fluctuation being transmissible from the rectum to the swelling in the iliac fossa. There was no swelling in the perineum, nor suggestion of abnormality from the appearance of the external genitals. A vaginal examination was not made.

On the morning following admission the temperature had fallen to 97° , while the pulse had risen to 140, and I was asked to see her. The pulse-temperature ratio being unsatisfactory, and the patient obviously suffering, it was determined to operate. Under chloroform the mass in the iliac region became, if possible, more obvious, while it retained its hardness to touch. On opening the abdomen a mass of omentum was found in front of the swelling, which had been crushed by the swelling against the abdominal wall, and had become gangrenous from ischæmia. This mass was removed and the subjacent swelling investigated. It was immediately recognised to be the uterine fundus, which was pushed up against the omentum and abdominal

wall by an enormously distended vagina. A finger was now introduced from the vulva into what appeared to be the vagina, but which was found to be a greatly enlarged urethra, the finger going straight and with the greatest ease into the bladder. Careful examination revealed the fact that there was no vaginal opening, there being only a greatly enlarged urethra, which expanded at its outlet to occupy the greater portion of the perineum, there being only a short interval between its lower border and the rectum. It was now seen that the case was probably one of retained menses arising, not from imperforate hymen, as is usually the case, but to entire absence of the lower portion of the vagina, and it became a question as to how the vagina might best be opened into without injury to the bowel. It was thought that, on

applying pressure to the abdominal mass, a slight bulging of the posterior urethral wall high up took place, and accordingly an incision was made in the posterior urethral wall, about $1\frac{1}{2}$ inches from the orifice, and, on deepening the incision, some two pints of dark fluid blood were evacuated, the abdominal swelling meanwhile subsiding. While the vagina was, of course, much distended, the uterus was small, but apparently normal. The opening into the vagina was now packed and the abdominal wound stitched up. The patient made an uninterrupted recovery, and has since menstruated regularly. Subsequent attempts by means of a plastic operation to narrow the urethra and widen the mouth of the vagina, and also to bring it to the surface, were only partially successful, and a further attempt is contemplated.

Probably two developmental factors were at work in this case. Normally the Müllerian

FIG. 1.

Myoma in section: dermoid after removal.

FIG. 2.

Diagrammatic representation of parts in the first case. A, Vagina laid open. B, Rudimentary cervix connected by pedicle to myoma (E). C, Dermoid replacing right appendages. D, Left appendages. E, Myoma replacing fundus uteri.

ducts open into the urogenital sinus about the end of the second month of intra-uterine life—the want of opening, therefore, would here date from a very early period of foetal existence. Further, the fused Müllerian ducts open normally into the urogenital canal some distance from the surface, and only reach the surface by shortening of the sinus. In this case the shortening did not occur, and the patient was thus left with a large “urogenital” urethra, the vagina ending blindly about $1\frac{1}{2}$ inches from the normal position of its orifice (Fig. 3).

FIG. 3.

Diagrammatic representation of the parts in the second case. A, Uterus projected against abdominal wall by distended vagina, which ends blindly in pelvis. B, Omentum crushed by uterus against abdominal wall and rendered ischemic and gangrenous. C, Symphysis with bladder above and behind it. D, Rectum. E, Abnormally large urethra expanding to occupy whole vulvar orifice.

It will be seen that Case 1 presented symptoms suggesting intestinal obstruction from internal strangulation, while Case 2 resembled a case of appendicitis with a large abscess occupying the pelvis and pointing through the abdominal wall. In the first case the twisting and gangrene of the pedicle of the myoma probably gave rise to the temperature and pulse symptoms, while in the second the gangrenous omentum probably fulfilled a like function. Apart, however, from the confusion of symptoms presented, the writer ventures to think that the cases are in themselves of sufficient interest and rarity to justify their being recorded.

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NUCHAL LIPOMATA IN THE LOWER ANIMALS.

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THE following note may be regarded as a kind of appendix to my article on Diffuse Lipoma published in THE LANCET of Nov. 26th, 1910, p. 1537. In that paper I advanced the opinion that what we have called the “diffuse lipoma” finds its principal form mainly in the male sex, and that it has its site in the fat which accumulates in certain regions around the roots of hair follicles. Its common position is at the back of the neck, and it might indeed be known as diffuse lipoma of the nape. In support of the statement that the fat which in this malady undergoes hypertrophy is that which imbeds the roots of large hairs I mention the facts that the region affected is that which in many animals grows the mane, and that in the human subject the same hypertrophy occasionally occurs in the pubic region around the roots of the large pubic hairs. In this latter position, although slight degrees of it are probably very common, examples sufficiently exaggerated to attract attention are probably rare. Still more infrequently are the matters of complaint brought under the attention of the surgeon.

I am now able to produce from a photograph one of these cases. It will be seen in the illustration that huge masses of fat are developed from the mons and adjacent parts, and are of such a size as completely to conceal the genitals. The patient was a man in whom very large masses had also developed on the nape of the neck and adjacent parts. Both from the nape and from the pubes the tumours were excised and were found to be huge masses of ill-defined fat developed immediately beneath the skin and closely adherent to it. The patient was a stout man in good health, but with no remarkable accumulations of fat in other parts than those named. It is the only case in which it was necessary to excise the pubic growths, and it affords proof that there is tendency in the same direction in these two regions.

It will be remarked at once that there is very seldom in the human subject any very marked tendency to the growth of large hairs in the back of the neck, and the next point I wish to establish is that certain animals in which a mane is present in this region there is a liability to fat hypertrophy about the roots of its hairs. Slight forms of this are, I believe, not very unusual, although I am not aware that any account of them has ever been published. My own experience is almost limited to asses, and at present I have under observation in two asses owned by two neighbours very remarkable examples of them. In the ass the overgrowth of fat begins at the root of the mane, and constitutes in slight forms and

Masses of fat in pubic region.

in all early stages simply a thick neck. Although placed mainly in the middle line there are, it may be observed, evidences of some central demarcation into two parallel masses which run side by side from the nape of the neck to the top of the withers. As the masses increase and become welded in one they tend to sway the mane over to one or other side. In one of the two asses mentioned above the mane is carried over by its roots to the right side, and is made to some extent irregularly pendulous. The tumours are never painful and usually the animal appears to be pleased to have them handled or rubbed.

Two points of interest must be mentioned. In the human subject these nuchal diffuse lipomata are met with, I believe, almost solely in males of middle age, and in those accustomed to drink malt liquor. The evidence given was that the patients were exceedingly fond of it, but it was not thought that they had any opportunity of over-indulgence.