the time, the pain was relieved, and the temperature reduced to 99°. I ordered her to continue one drop three times a day. At the end of a week, the pain continued, though the temperature stood at 99°.

10. A female, aged 45, had severe spasmodic asthma with distressing exacerbations. Tincture of aconite in drop-doses, given every ten minutes for two hours, gave no relief during an exacerbation. This drug was also continued every four hours for a fortnight in drop-doses. It did no good. Much relief was experienced from amyl-nitrate, and some also from nitro-glycerine. The heart was sound.

11. This was a case of aortic regurgitation, with slight albuminuria. The tincture of aconite was given in one-drop doses three times daily for six weeks. In this case, the cardiac action was quieted, and the murmur became almost inaudible, while the albumen disappeared; but whether these were due to the drug, or to rest in bed and good diet, I cannot say.

12. In a case of acute nephritis following lardaceous disease, with supuration of the hip-joint, tincture of aconitum ferox was given in one-drop doses three times daily. After six weeks, though the urine greatly increased, and the quantity of albumen became less, both it and the blood still remained. As in the other case, rest and diet, and local application, may have assisted in the benefit which took place.

13. A case of tubercular leprosy, in an European boy from India, was kindly placed under my care by Dr. Colcott Fox. After a fair trial of the aconite, Mr. Dendy, the house-surgeon, writes me as follows, of the last two cases as well as this. "This is the only case in which I think anything definite can be said, as all other treatment was stopped, and he certainly seemed to improve in the face." In this case, the elevated copper-coloured blotches, characteristic of the hopeless stage of the malady, were well marked, and any drug that seems to improve or even check their progress is worthy of trial.

Besides the above, I have also tried this drug, both externally and internally, in some cases of acute gout, with the best results.

As an external application, it is, I think, distinctly superior to the aconite liniment of the *British Pharmacopœia*, and the following lotion I have found to give better results than the tincture of the aconitum ferox or other preparation. ℞ Aconitinæ gr. j; spiritus rectificati ʒj; glycerine ʒiv; aquæ ʒj. Fiat lotio. To be applied over the painful part.

Such are the cases where I have been able to try this drug. They are not, perhaps, very interesting in themselves; but if they serve to direct further attention to this subject, particularly among European practitioners in India, my object will have been attained; for the adoption of such a course will both save expense and benefit science. As to the mode of action of the drug, it is, I think, similar to that of the aconitum napellus. The difference is more of degree than of kind.

Thus, it is more diuretic and less diaphoretic than the aconitum napellus; and probably, also, because it is less diaphoretic it is less antipyretic.

As an anæsthetic, or dysæsthetic, in gouty and rheumatic conditions, it is superior to the aconitum napellus, while, as a vascular depressant, in small doses it is not so powerful. I have given it in a case of fatty heart and intermittent pulse during an attack of intercurrent congestion of the lung in an old subject, not only without danger, but with a highly beneficial effect. In this case, it quickened the heart's action. In minute doses, it probably acts as a cardiac stimulant. In small doses, it stimulates the nervous system at all parts, and peripherally. In moderate doses it causes dysæsthesia, perversion of sensation, as exemplified by the tingling and numbness; while, in larger doses, it is an anæsthetic, and a paralysing of the nerves and other centres. Its first action on the nervous system, with its diaphoretic effect, will probably be found to explain its good effect in leprosy.

Its first effect is to produce heat, followed by lowering of the temperature and cold perspiration. The heat-producing effect I felt myself, though the heat of bed may have prevented the subsequent coldness and perspiration. Also in the case of scarlatina above detailed, the primary exaltation of temperature, followed by coldness and sweating, was well marked.

Its antipyretic effect is due to a lowering of the central circulation, by which it lessens the production of heat, while, by its diaphoretic action, it facilitates its removal. Thus its action is different from that of quinia and some other drugs, which destroy or minimise, by their antiseptic action, the conditions which lead to, or tend to excite, fever. When given in chronic rheumatic conditions, it may be given till tingling is produced; whereas, in acute rheumatism, its action on the heart, though useful in moderate doses in the early stages, and in small throughout, must be carefully noted later on in this disease.

In still larger doses, it causes nausea and vomiting, muscular tremors of the limbs, profuse cold sweats, disappearance of the painful peripheral sensations, dryness of the throat and fauces, ardent thirst, alternations of heat and cold, great irregularity of the heart's action and of respiration, feebleness, and even loss of muscular power, great and burning heat of the stomach, throat, and intestines, attended with some muscular cramp, extending to nails, lips, and heart. This, if life be prolonged, is followed by inflammation, convulsions, intoxication, delirium, and death, which is sometimes attended with stupor, though, at others, the mind remains clear to the last.

One word, in conclusion, as regards the aconitum heterophyllum, known in India, under the name of atees, as a powerful tonic and aphrodisiac medicine. It possesses none of the poisonous, antipyretic, or anodyne properties of the other species of aconite. Sixty grains were given to a large dog without any injurious effect. As a tonic it is useful; while, as an aphrodisiac, I have no personal experience; but as I know that the late King of Burmah, who kept seventy wives, and whose opinion, therefore, is deserving of respect, held it in high esteem, it is probable it may possess some virtue in this direction.

Professor MATTHEW HAY (Aberdeen) said that the members were greatly indebted to Dr. Cullimore for his varied observations on the effects and uses of Aconitum ferox. It was greatly desirable that other physicians placed in our colonies would devote similar attention to other drugs which might be found in use amongst the natives. America had done much recently, first, through its eclectic practitioners; and, latterly, through its regular physicians, and largely also its chemists, to bring to the notice of the medical profession throughout the world, the virtues of their indigenous drugs. Similar work was urgently called for in our colonies and possessions, especially in India and Australia; and there could be no doubt that equally good results would be obtained.

EXCISION OF THE UTERUS BY THE VAGINAL (THREE CASES) AND LAPARO-VAGINAL METHODS (ONE CASE) FOR CANCER.

Read in the Section of Obstetric Medicine at the Fifty-Second Annual Meeting of the British Medical Association.

By J. WALLACE, M.D. Edin.,

Professor of Midwifery and Gynaecology in University College, Liverpool, Victoria University; Physician to the Thornton Wards for Diseases of Women in the Royal Infirmary.

In the Obstetric Section, at the meeting of the Association last year, in Liverpool, the duty devolved upon me to introduce the discussion on total or partial extirpation of the uterus for malignant disease.

My experience in uterine operative work, chiefly in excising the whole of the cervix, had led me up to a clear perception of the methods to be adopted to render excision feasible and successful. The communication, which followed my address, from Professor Schroeder, of Berlin, gave me great satisfaction, because it showed that he had already done successfully what I was only contemplating, and by the same methods. Indeed, to one skilled in vaginal uterine surgery, the perception of the proper steps of the operation bursts upon the mind naturally. The other question, as to the operation being curative, or not, and hence justifiable, or unjustifiable, had also to be considered. It can only be answered in the negative or affirmative by practical work. With this in view, I now offer an instalment. Not that this will show much, as sufficient time has not elapsed, but it at least demonstrates, that extirpation, or excision of the whole uterus by the vagina, is feasible, and it is followed by recovery; whilst the addition of abdominal section increases the fatality. It also shows that fatal results follow when the diseased conditions are advanced. Such conditions negative the operation. As in cancer of the breast, when the glands of the axilla are normal, both tumour and apparently healthy glands should be excised; but when the axillary glands have already become infiltrated with cancerous deposit, the operation is contraindicated. So with cancer of the uterus. Any secondary glandular cancerous deposit negatives the operation. Hence, let me reiterate again and again, as I did last year, "the vital importance and necessity of seeing and operating upon cases in their initial stages, if women are to be rescued from untold misery, and suffering, and death."

CASE I. *Epithelioma of Cervix Uteri: Total Extirpation of Uterus: Recovery* (reported by Mr. Laimbeer).—M. S., aged 33, married, was admitted January 28th, 1884, with this history. She was perfectly

well twelve months ago. Last summer she had great itching of the external genitals, no pain, and a slight whitish discharge was first noticed in June, which was not at first offensive to smell, but four months ago it became so. The discharge was now slightly blood-stained occasionally. She had never had flooding or pain, but the offensive odour was now characteristic. The catamenia came on at the age of 17; they were regular and normal, lasting seven days, sometimes clotted, but not lately. She had never been pregnant. There were no bladder symptoms; the bowels were regular.

On vaginal examination, no cervix as such could be felt; but, in its place, a large mass of friable tissue, easily breaking down and bleeding. It had a narrow base, and replaced the lower part of the cervix. None of the surrounding structures or glands were affected.

January 31st.—Dr. Briggs administered anæsthetic, and the patient was placed in the lithotomy position by Mr. Laimbeer. The vagina, previously well purified, was rapidly dilated. Dr. Wallace then exposed and seized the diseased mass with vulsellum forceps, and severed the cervix from its connections with the vagina through healthy mucous membrane; after which, to gain room, the diseased portion was removed by a bistoury. A large vessel was opened, and caught by compression forceps. The Douglas's sac was opened; the connection between the bladder and uterus was separated by the finger as far as the peritoneum. Two fingers of the left hand were passed into the peritoneal cavity behind the uterus, and the fundus was retroverted, and easily dragged down into the vagina. Two elastic ligatures were now applied through an opening in the peritoneum between the uterus and the bladder, at a point midway between both broad ligaments, and firmly tied one round each, and secured from slipping by hare-lip pins, the points of which were then snipped off, and the uterus was then severed from its connections, and removed completely. The compression forceps and hare-lip pins were left in the vagina, one in the right and one in the left fornix. The vaginal mucous membrane was brought together by two wire sutures. The vagina was then washed out with a one in forty solution of carbolic acid. Salicylic cream was then smeared all over its walls, and eucalyptic ointment, powdered with iodoform, to the size of a filbert, was left at the top of the vagina to act as an antiseptic dressing. Externally, iodoformised absorbent cotton was placed over the vulva. The patient was then placed in bed arranged as an inclined plane, so as to favour drainage.

10 p.m.—Dressing, the same as the last, was repeated. The discharge was quite sweet. There was no tympany nor pain. There was very slight sickness. Nothing was given to the patient, not even ice. Pulse 100; temperature, 99.9°.

February 1st (first day). Dressing was done three times to-day. She slept two hours. There was no pain. Morning pulse, 100; temperature, 99.8°. Tongue moist. There was no distension of the abdomen. Evening pulse, 106; temperature 99°. The discharge very sweet.

February 2nd (second day). She slept two hours after ten minims of tincture of opium. Dressings were done four times. The discharge was quite sweet. Slight tympanitic distension of hypogastrium. Pulse, 104; temperature, 98.6°. Fifteen minims of tincture of opium were given at bedtime.

February 3rd (third day). She did not require opium. The forceps and hare-lip pins were removed. There was no hæmorrhage. Dressing was done every six hours. The discharge was sweet. There was still slight flatulent abdominal distension; belching of wind, and downward free passage of flatus *per rectum*. Pulse, 102; temperature, 99.4°.

February 4th (fourth day). Last evening she was sick, and vomited after brandy-and-water. Port wine was substituted for it, and vomiting ceased. No opiate was given, hence she slept little during the night, but made up for it in the morning, and felt better. The abdomen was less distended, and flatus passed freely. The tongue was still coated, but moist. Pulse, 110; temperature, 98°.

February 6th (sixth day). She progressed favourably. The discharge was serous and sweet. There was no blood stain. Pulse, 126; temperature, 99°.

February 8th (eighth day). The bowels were loose for thirty-six hours, but not profusely. The discharge was less. Pulse, 124; temperature, 99°.

February 10th (tenth day). Diarrhœa continued of a watery character, but not much dejecta. There was no pain. The tongue was clean and moist. Pulse, 120; temperature, 100.5°.

February 13th (thirteenth day). Pulse, 100; temperature normal; discharge less.

February 26th. She was convalescent, and gaining flesh rapidly. There was slight discharge.

March 6th. The discharge had nearly stopped. She was sent to a convalescent home at Wootton. She felt very well.

March 24th. She came back from the country, and had the vaginal stitches removed. Nothing was to be seen or felt of the India-rubber ligatures.

REMARKS.—I have given this case fully in detail, because it was typically suitable for the operation, whose various stages I have described, such as were carried out, *seriatim*. The after-treatment consisted chiefly of free drainage and antiseptic cleanliness. In his operation Schroeder found some difficulty from slipping of ligature and hæmorrhage difficult to control. By the use of hare-lip pins this is entirely obviated. The pins also act as a drain into the vagina. The elastic ligatures become absorbed like silk, or at least they disappear without producing any irritation.

Menstruation.—Although the ovaries came into view, and within reach, I did not remove them. Neither did I excise any considerable part—about half an inch—of either Fallopian tube. The question was put to me, "What about menstruation?" I replied "I did not think we should have any return of it. Ovulation will go on, but the organ from which the menstrual discharge flows having been taken away, it is difficult to see from whence the flow could come." It is now six months since the operation was performed; the patient is strong and well in every way, but she has never menstruated again, nor has she had any of the sensations of ovulation she used to experience at her monthly periods before the operation. In this case it therefore is clearly demonstrated that the Fallopian tubes have nothing whatever to do with the formation of the menstrual flow. From the uterus only comes the outward expression of ovulation, and we know ovulation does go on without that evidence. Further experience is, however, required before these points are finally settled, and I merely offer these observations as contributions towards that settlement.

CASE II: *Epithelioma of whole of Cervix Uteri, and extending posteriorly on to Vaginal Wall: Extirpation of whole Uterus: Recovery.* (Reported by Mr. Laimbeer.)—M. F., aged 47, married, was admitted April 7th, 1884. Her previous history was that of feeling ill for twelve months; a fetid discharge for six months, attended with pain; some hæmorrhage two months ago, and since then the discharge has been tinged with blood. The pain was worst at night. The catamenia came at the age of 15, and continued normal till the menopause at 37. She had eight pregnancies and two abortions. On admission, she complained of the discharges, and sacral pain, intensified at night; bowels and bladder regular and unaffected.

On examination *per vaginam*, the whole of the cervix was found involved in the epitheliomatous mass, also the posterior fornix and about half an inch of the posterior vaginal wall. The body of the uterus had undergone senile atrophy, and had free mobility.

April 28th. The vagina, having been small and narrow, was well dilated, and I performed the operation precisely in the same manner as described in Case I. The diseased vaginal parts were also carefully removed, as also a cancerous nodule in the right broad ligament. Both ligament and nodule were excised, but with difficulty. The dressings and after-treatment were the same as in the previous case, only iodised carbolic water was used as a vaginal injection.

April 29th. The patient nearly collapsed from the shock of the operation. The pulse was less, and the temperature 97°. Stimulants and subcutaneous injections of ether succeeded in rallying her. On the third and fourth days, the temperature ran up to 100.5° and 101°, and then dropped to normal; the pulse, at one time 104, kept steady at about 100 till convalescence.

May 16th. She was discharged, feeling free from pain. She had good appetite, and slept well, and was much stronger. There was no discharge.

REMARKS.—The ovaries, small and atrophied, came into view during the operation; but, as in the last case, were not removed. The two chief points to be noted are: first, the intense shock, which nearly proved fatal, after the operation; and the early uninterrupted recovery subsequently made. Perhaps the prognosis is not so favourable as in Case I, on account of the extension of the disease to the vaginal upper portion of the recto-vaginal septum.

CASE III. *Carcinoma Uteri: Excision: Death.*—M. W., aged 50, was admitted into the Thornton Ward on May 20th, 1884. Her previous health had been good until two years ago. For twelve months she had pelvic pain and a brownish watery discharge. She had been under treatment since January. The catamenia came at 14, and were normal through life. She had had seven pregnancies; the last seven years ago. On admission, she had severe pelvic and anal pain, worse at night. There was slight irritability of the bladder. The bowels were regular. The cervix was the seat of malignant ulceration of a ragged and uneven character. The uterus measured three inches and a quarter, and was enlarged equally, and had impaired mobility from enlargement, and not from adhesions.

May 21st. The ether was administered by Mr. Corkhill, and I was assisted by Mr. Laimbeer. After forcible or speedy dilatation of the vagina, the ragged ulcerated cervix was seized by vulsellum forceps, and drawn down. The posterior fornix of the vagina, by a semilunar incision, was opened into Douglas's pouch. A similar incision was made in the anterior fornix, and the utero-vesical connections separated, the bladder being lifted out of the way by a sound. The fingers were then passed into Douglas's pouch, and the fundus uteri hooked down; but retroversion could not be performed, the broad ligaments holding the uterus too firmly in position. They were, therefore, divided on each side for about one inch; but even then the fundus could not be brought down. Complete detachment of the peritoneum of the utero-vesical fold was next carried out, and a two-pronged hook was then passed up, guided and covered by the fingers, and fixed into the fundus uteri. Considerable traction was required to produce version and bring the fundus into the vagina. Two elastic ligatures were applied in the usual manner; and the whole of the organ, Fallopian tubes, and ovaries were removed by excision. Ligatures and clamp-forceps controlled hæmorrhage from the surfaces of the broad ligaments first divided. Two sutures brought together the vaginal flaps. Forceps and hare-lip needles guided the drainage, as usual, downwards into the vagina. Iodised carbolic lotion, salicylic cotton, and eucalyptic iodoform dressings were employed, as in previous cases.

10 P.M. The patient had been very restless since the operation. There was a pretty free discharge of sanguineous serum. She had no sickness. Pulse 92. There was slight pain.

May 22nd, 10 A.M. She had great pain during the night, and was sleepless. She had a sharp attack of collapse, which yielded to brandy and the application of hot bottles to the trunk and extremities. The discharge was serous and free. There was slight hypogastric tympany.

May 23rd. She died.

CASE IV. *Sarcoma Uteri: Evulsion of Sessile Polypus (Sarcomatous): Excision of Uterus by Vaginal and Abdominal Section: Death.*—T. L., aged 46, was admitted October 6th, 1883. Her previous history gave a record of illnesses lasting six years: jaundice, dropsy, vaginal discharges, of a purulent character; pain in the hypogastrium, spasmodic and recurrent; slight at first, but now increasing in intensity, and affecting the whole pubes and sacral region. It was now continuous, of a heavy bearing-down character, and attended by constant vaginal cream-coloured offensive discharges, and occasional attacks of dysuria.

October 14th. On examination *per vaginam*, the os uteri was somewhat dilated by a presenting polypus, growing from the left and posterior wall of the uterus, which was brittle and soft, easily breaking down by pressure with the finger. Dilatation with sponge-tents was ordered.

October 16th. The patient was put under ether; and, in the dorsal position, I removed a polypoid mass, as large as a duck's egg, having the appearance of an uterine fibroid.

January 20th, 1884. It was now evident that the disease was recurrent, the interior surface of the uterus giving to the finger the sense of touch of a fungating mass. The discharge was sanguineous and offensive. The uterus was enlarging somewhat. I ordered the vagina to be dilated, as it was small, and the uterus to be again opened up by tents.

February 13th. The disease was now diagnosed as recurrent sarcoma, and microscopic examination confirmed this view. It was, therefore, determined to excise the uterus. Dr. Briggs administered ether; and, assisted by Mr. Laimbeer, I proceeded to attempt removal by the vaginal method already described; but failed to retrovert the uterus, even although the fundus was firmly seized by the crotchet, and force applied. Abdominal section was performed in the median line to over three inches. With great difficulty the uterus was drawn out of the pelvic cavity, owing to the thickening and shortening of the broad ligaments. These, to one-half their extent, were clamped and divided. The utero-vesical *cul-de-sac* was then transfixed with a needle, and strong silk passed, by which means the remainder of the broad ligaments were secured. The whole of the uterus was then removed. The clamp-forceps were removed, and the vessels ligatured. The abdominal and vaginal sections were then closed; free drainage and the usual antiseptic dressings were employed. The immediate shock was great; but the patient rallied for several hours, and then quietly sank.

REMARKS.—I place these two last cases together, because, taken conjointly, they enable me to arrive at certain conclusions having a practical importance. Had I done the operation in Case III, previously to Case IV, I certainly never should have attempted to remove

the uterus in the latter. In Case III, the uterus was hardly twice its normal bulk, and yet there was the greatest difficulty and effort required to bring down the fundus to the vagina; while, in Case IV, this was found to be impossible. Hence abdominal section had to be resorted to, in addition to the vaginal antero- and retro-cervical section. This enormously increased the shock to the patient's system, and *de facto* was the proximate cause of her death.

These four cases lead me to the following practical conclusions.

1. In the early stage of cancer of the womb, while the organ is still mobile and not enlarged, the operation for excision is justifiable; and, as in Cases I and II, the patients recover, and rapidly regain health and strength.

2. The vaginal operation is to be preferred to all others, abdominal section enormously increasing the risks, and not being necessary in cases suitable for the operation.

3. Such Cases as III and IV are not suitable for operation; and, if I were again called upon to operate under such physical conditions of advanced disease, I would consider it unjustifiable, and decline doing so.

TUBERCULOSIS OF TESTICLE IN AN INFANT.

Read before the Wigan Medical Society.

By E. H. MONKS, JUN., L.R.C.P. and S.Ed., Wigan.

R. A. C., A CHILD, aged five months, came under my care on January 1st, this year, suffering from an enlargement of the right testicle, which had been noticed by the parents for some days previously to my seeing it. On examining, I found the testicle enlarged, painful, and hard; there was also thickening of the spermatic cord, which latter contained some hard nodules. On examining further, I discovered in the left ischio-rectal fossa a distinct fulness, as though an abscess were forming. There was no evidence of fluctuation in this part, and pressure seemed to cause pain. I came to the conclusion that injury must have been the cause of these two swellings in the first instance, yet the parents were unable to give any history of injury. I prescribed linseed poultices and hot fomentations to the swelling in the ischio-rectal fossa, and lead and opium lotion to the enlarged testicle, and an anodyne mixture internally.

In a few days, the swelling in the left ischio-rectal fossa softened, and I detected fluctuation. I made an incision into the part, and removed about two drachms of pus.

The enlarged testicle did not change much, but, if anything, seemed to become larger; I left off the application of the lotion, and applied strapping. Under this treatment, I thought there was some diminution in its size; but I must have been deceived. I then tried the application of iodine, and gave iodide of potassium internally, having now come to the conclusion that it was either specific (although I had no history) or malignant. Yet a malignant tumour of the testicle in such a young child must be rare. The child became weaker. I noticed a few enlarged glands in the inguinal region. The small opening in the ischio-rectal fossa was still discharging. The back part of the testicle became reddened and soft, as though the skin were about to give way. I proposed to the parents removal of the enlarged testicle, as the only remedy to give the child a chance of living. To this they objected. The child gradually sank, and died on March 7th from asthenia.

I could not get permission to make a complete *post mortem* examination, but was allowed to examine the testicle. On making an incision into the scrotum, and coming down on the testicle, I found the anterior surface hard, as during life, and the posterior part soft and breaking down, and containing a little pus. On making a longitudinal section of the tumour, I found the testicle proper, surrounded by a large amount of dense and firm tissue; the nodules also were hardened in the cord. I forwarded the specimen on to Dr. Dreschfeld, of Manchester, who very kindly examined it. The naked-eye appearances were exactly like those of a scrofulous testicle; and, microscopically, it showed embryonic tissue, giant-cells, and detritus where the mass was broken down; also, in the scrapings, several tubercle-bacilli were found. Dr. Dreschfeld also added, that "it is very likely the scrofulous testicle was the primary focus, and set up afterwards general tuberculosis. Had the parents allowed you to remove the testicle during life, probably the child might have been saved. Scrofulous testicle at such an early period is rare." I may mention, in conclusion, that the parents have no trace of tuberculosis in the family, and their other children are healthy.