subsequent doses of these parasitocides. A considerable number, however, take the antimony course as out-patients, attending hospital regularly for their injections.

Complications.

Many patients have complications due to the disease, which are appropriately dealt with. Vesical calculus is treated by lithotripsy or suprapubic cystotomy, the injections being continued. Bilharzial growths of the perineum, often resulting in urinary fistulae, are treated by operation in addition to injections. It is remarkable to notice the influence of the injections on the healing of these fistulae; down to a year ago they used to be our most chronic cases, often taking months to heal up after operation. Now the average case heals in about twenty days. Rectal cases showing friable, cauliflower tumours of the mucous membrane, many of considerable size, are treated by ligature, and in the case of small growths by removing as much as possible by scraping with the finger-nail and swabbing with zinc chloride solution. Again, the influence of the injections on these growths is very marked, as many of them quite disappear in a comparatively short time after scraping. Previously two or three operations were necessary. As regards other complicating conditions a very large proportion of the cases, as mentioned above, also suffer from ankylostomiasis, and a considerable number have pellagra. Nephritis is observed occasionally, and in several weak patients with this complication the treatment had to be abandoned.

Late Results.

In a country like Egypt it is always very difficult to follow up cases and to get satisfactory statistics, but we have inspected several patients some months after treatment who testify to the complete relief of all symptoms. Microscopical examination, moreover, still shows only "dead" eggs. The same result is found in several of our own workers who took the course a year ago. In no case have we seen living eggs reappear after completing a successful course, though obviously this might be possible owing to reinfection.

CONCLUSIONS.

1. The results of the antimony treatment on a large scale bear out in a remarkable way the findings of those who have recently written on the subject, and especially of Christopherson, to whose original research is due the fact that bilharziasis need no longer be regarded as an incurable ailment.

2. As most ordinary patients are unwilling or unable to make a protracted stay in hospital, it is necessary to hasten the antimony course and thus give liberal doses; yet in cases where it is possible we urge a more gradual administration of the drug, and in this way we believe risk will be reduced to a minimum, while the eventual cure will be as surely effected; 20 to 25 grains of antimony tartrate is, in our experience, the average amount required to effect a cure. While a less toxic substance than antimony tartrate would be welcomed, we are persuaded that its toxic effects can be largely eliminated by cautious administration.

3. To reduce the mortality a very careful investigation of cases is necessary. "Rests" should be given on the occurrence of any untoward symptoms, the dose lessened at the least indication, and the course immediately abandoned in cases showing marked intolerance.

4. The above technique is recommended as being simple and rapid where large numbers of patients are to be dealt with, as, for instance, when any attempt is made to eradicate the disease in infected districts.

5. It is noteworthy that the successful surgical treatment of complications dependent on bilharziasis, such as urinary fistulae and rectal papillomata, is enormously facilitated by the elimination of the causative factor.

THE third annual meeting of the Board of Governors of the League of Red Cross Societies will be held in Geneva on March 28th. The Board contains representatives of the Red Cross of the United States, Great Britain, Australia, France, Italy, Japan, Spain, Sweden, Brazil, Switzerland, Argentina, Belgium, Denmark, and Serbia. The chairman is Mr. Henry P. Davison, of the American Red Cross, and the vice-chairman the Director of the League, Sir David Henderson.

STENOSIS AT THE INTERNAL MEATUS AFTER SUPRAPUBIC PROSTATECTOMY.

BY

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ALTHOUGH Freyer's operation of suprapubic prostatectomy, correctly performed, is rarely followed by serious after-effects, a recent article by Thomson Walker¹ shows that stenosis at the vesico-prostatic orifice is not a very uncommon occurrence. In a certain proportion of cases after prostatectomy it is difficult or impossible to pass a catheter

into the cavity of the bladder, even when the patient does not complain of any difficulty in micturition. The instrument hitches against a diaphragm roofing the remains of the cavity once occupied by the prostate. The point of the instrument can be moved more or less freely in a space in front of the rectum and behind the bladder, and the injection of fluid, unless very slowly performed, is apt to give rise to pain. The fluid, however, if slowly injected, may find its way into the bladder. The

A. Vesico-prostatic septum.
B. Stenosis of vesical orifice.
C. Prostatic cavity.

difficulty in introducing the catheter is due, first, to the absence of the guidance of the prostatic urethra, and, second, to the fact that the vesical orifice of the prostatic cavity is not in alignment with the direction of the urethra. It is, in fact, difficult to hit off with the point of the catheter the vesico-prostatic opening. If, in addition, this opening has contracted, the difficulties are much increased. (See B, in diagram).

The following are illustrative cases:

CASE I.

In July, 1914, I removed an enlarged prostate and a villous growth in a patient aged 70 years. In November of the same year he returned, as directed, for cystoscopic examination to ascertain if any recurrence of the villous growth had taken place. I found it impossible to introduce the cystoscope, though the patient denied any difficulty in micturition. After trying several catheters and dilators I was able to pass a small instrument and to dilate gradually the internal opening sufficiently to admit the cystoscope and destroy with the high frequency current a commencing papilloma. In December of the same year I again had difficulty in dilating him sufficiently to pass the cystoscope. In September, 1915, I passed the cystoscope once more, and again destroyed a small papillomatous bud. Immediately after this I went abroad and did not see the patient again, but I ascertained that he remained well until his death from apoplexy in September, 1919, at the age of 75.

CASE II.

In April, 1919, I removed an enlarged prostate in a patient aged 61 years. Fourteen days after his operation he could hold his water for six hours and pass it in a vigorous stream. In May the suprapubic wound began to leak, and I attempted to pass an instrument into the bladder, but only succeeded in getting in a fine catheter. The wound healed in a few days and remained firm until June, when it again leaked for a few days. I saw him subsequently for cystitis, and tried to pass a catheter to wash out his bladder, but failed absolutely. As his symptoms were slight he refused to have anything further done. I have seen him several times since, and he informs me that he is passing water freely and without pain.

CASE III.

A third case gave me a good deal of trouble. The patient was aged 64 years. I removed his prostate in May, 1919. He passed urine on the twenty-sixth day, but leaked a little from the suprapubic wound on micturition for a fortnight after. From this on his wound was dry, and he left the nursing home apparently well on the road to recovery. It was evident, however, as time went on that he had not obtained the usual relief from prostatectomy. He complained of frequency and pain, passing small quantities of water at a time with much difficulty and straining. The urine contained a good deal of pus. In March, 1920, an attempt was made to pass an instrument to wash out his bladder. All kinds and shapes of catheters and dilators were used, but none of them could be got to enter the bladder. Fluid injected at the meatus was tolerated, and disappeared, presumably into the bladder. On March 19th, 1920, cystotomy was performed through the suprapubic scar. The bladder was empty. The prostatic cavity was roofed over by a

membrane in which could be felt and seen a small umbilicated opening in the middle line anteriorly, admitting an ordinary probe (see Bin diagram). The prostatic tent-like roof was slit from before back in the middle line. As the incision was prolonged backwards it was found that the septum became thicker as it passed back to become continuous with the bladder wall. When the operation was completed there was a deep and wide sulcus bisecting the base of the bladder and throwing the prostatic and vesical cavities into one. A drain was inserted and the bladder irrigated daily. On April 2nd the wound was dry, and the patient was able to pass water in a good stream. On May 7th a full-sized dilator passed easily into the bladder.

In order to avoid this complication I have recently taken the precaution of slitting posteriorly with scissors the vesico-prostatic septum as far as its junction with the bladder wall immediately after removal of the prostate. This step is facilitated by grasping the margin of the septum on each side of the middle line with Lane's tissue forceps and cutting between. If the line of incision is clamped by pressure forceps before cutting, bleeding is avoided.

It might be desirable to pass full-sized dilators at intervals for a time in cases in which this complication is suspected and has not been provided for at the primary operation. Thomson Walker, in the article referred to, draws attention to this obstruction, and describes a method of dealing with it. He also extends the operation of Freyer to prevent its occurrence by removing a wedge with the base forwards, from the posterior lip of the prostatic-vesical opening.

I am indebted to Mr. R. H. Hunter for the accompanying diagram.

REFERENCE.

¹ Thomson Walker: Haemorrhage and Post-operative Obstruction in Suprapubic Prostatectomy, *Brit. Journ. Surg.*, vol. vii, No. 28, April, 1920.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

HERPES AND VARICELLA.

THE following series of cases apparently proves that varicella can be contracted from a patient suffering from herpes, and vice versa.

Just before Christmas a school child was brought to me suffering from herpes on the thigh and buttock. On January 10th and following days several cases of varicella occurred in the village among school children.

On January 17th I was called to see a man aged 35 with supraorbital herpes. Several other children went sick with varicella about February 1st.

On February 10th I saw a man with occipital herpes. There was another batch of children down with varicella on February 14th, and this morning (February 19th) yet another man came to the surgery with supraorbital herpes.

So far as I can make out none of the patients with herpes can have contracted it directly from either of the other patients with herpes, and varicella has apparently acted as a connecting link between them.

The population of the village is only about 1,000, so the occurrence of four cases of herpes at about the same time is unlikely unless it is to some degree infectious.

Stokenchurch, Bucks. E. L. ELLIOTT, M.B., B.S. Lond.

CONCURRENT HERPES ZOSTER AND VARICELLA.

ON November 10th, 1920, I was asked to see, in consultation, a medical student, aged 22 years, who was suffering from herpes involving the upper branches of the right fifth cranial nerve. The history of the case was that on October 31st he began to suffer from intense neuralgic pain in the right side of the forehead and scalp and in the right eye. On November 6th herpetic vesicles appeared on the forehead and scalp over the skin area supplied by the ophthalmic division of the right fifth cranial nerve, and the pain was now so severe as to prevent him from sleeping, and at the same time evidently much diminishing his self-control. I ordered him some butyl-chloral hydrate as a sedative, and, seeing him again the following day, found that herpetic vesicles had appeared on the skin supplied by the same division of the fifth left cranial nerve. On

November 12th, that is, six days after the initial herpetic eruption, a generalized varicellar eruption came out on the trunk, upper and lower limbs. There was no pain from the new eruption, and it disappeared in about six days, leaving no scars, whilst the initial vesicles took a further fourteen days to heal, leaving extensive scarring of the right side of the forehead.

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TREATMENT OF LOCAL LEISHMANIASIS.

WITH regard to Colonel Erskine Risk's treatment of Delhi boils with solid caustic potash, noted in the *JOURNAL* for February 19th, p. 267, I may state that I have used Loeffler's methylene blue with favourable results in this affection. Loeffler's methylene blue has a small quantity of caustic potash (KOH) in it, and I suppose this ingredient was the curative agent. Painting this blue solution over the sores twice a day proved efficacious in a week. The use of solid caustic potash on the face anywhere near the eye might be fraught with discomfort if not with danger.

C. DONOVAN,

Lieut.-Colonel I.M.S. (ret.).

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A BULLET IN THE CAUDA EQUINA.

THE following case seems worthy of record because of the site of injury, the safe removal of a foreign body from such a delicate situation, and the comparatively slight symptoms produced during a period of five years.

Pensioner E. was admitted to the Ministry of Pensions Hospital, Neath, with a history of a gunshot wound of the left buttock. He complained of swelling in the feet, with numbness and inability to bend down owing to pain in the back. His history showed that in April, 1915, he received a wound in the buttock while in charge of a party leaving a front line trench, and he fell over some barbed wire, his legs having "given way." He remained there some hours before being moved to the casualty clearing station. From there he was sent to Bethune and later to Boulogne, where, he states, he was unconscious for several days. On recovery he was sent to England "suffering severely in the back," and in due course he was discharged as unfit in September, 1915. From this time to 1917 he was able to get about fairly well walking with sticks, but with occasional attacks of pain and numbness, especially in the left leg. Late in 1917 he commenced light work which he continued until admitted to this hospital in October, 1920. X rays revealed a foreign body lying in or around the spinal canal, at the level of the interspace between the third and fourth lumbar vertebrae, and at an approximate depth of 2 in. from the skin. As the pressure symptoms were becoming more marked Major Alwyn-Smith, D.S.O., F.R.C.S., visiting orthopaedic surgeon, decided to operate. When the spines of the third and fourth lumbar vertebrae were removed dense scar tissue was found around the laminae. The latter were removed very carefully by chisel owing to the depth of the wound and its limited extent, and haemorrhage, at times free, was controlled by packs of adrenalin. The dura mater now exposed was found thickened by an annular mass of scar tissue, which was dissected off and the dura incised. A small quantity of cerebro-spinal fluid escaped, necessitating rapid elevation of the foot of the operating table. On palpation the cauda equina was found to be hard, and had a resistant feeling which was evidently due to some foreign body lying within. Further cautious dissection revealed a bullet lying longitudinally, apex upwards, embedded in scar tissue. This foreign body was removed from the cauda equina, the dura stitched, and the operation completed. No untoward symptoms or signs arose, and the wound healed rapidly. In a few days a plaster spinal jacket was applied, and this was worn for six weeks. The patient was discharged well, with all movements normal, and with no loss of sensation.

I am indebted to Major Howard, medical superintendent, for permission to publish this case.

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It was reported to the London County Council on February 8th that during the three months ending with September last 360 samples of milk from twenty-four English counties were taken at London railway stations, and 15 (or 4.16 per cent.) proved to be tuberculous. Of 608 cows at twelve farms situated outside the county of London which were examined by the Council's veterinary inspector, 13 were found to be affected with generalized tuberculosis. The usual arrangements were made with the farmers for the disposal of these animals.