had been anticipated. Towards the upper part of the descending colon, a very small ulcerated aperture, two lines in diameter, existed; but no fæcal matter had escaped, though flatus had passed abundantly, and had distended the peritoneal cavity, entirely obliterating any sign of local tumefaction before her death. A stricture existed in the rectum, within reach of the finger introduced through the anus; it consisted of a circular firm belt, about half an inch broad. The mucous membrane, both above and below the stricture, was perfectly healthy. In the space occupied by the constricting band, it was much puckered, but otherwise was healthy. The coats of the intestine above the stricture were considerably hypertrophied. The mesorectum was thicker and firmer than ordinary, and contained some enlarged glands. The mesenteric glands and the other contents of the abdomen, as also the organs within the chest, were healthy. The stricture consisted of fibrous tissue, with a large number of very minute cells, the largest of which did not exceed the one-thousandth of an inch in diameter. With them were small globules and nuclei, and amorphous matter.

Case vii. A female, uged 45, was seen by Mr. Orford the day before her death. A stricture of the intestine was found in the sigmoid flexure of the colon; the intestine at the spot was bound tightly to the pelvis. An ulcerated opening existed at the strictured portion, through which some of the contents had escaped. The cæcum and the ascending colon were greatly distended; otherwise the intestines were healthy. There were the results of general peritonitis. The stricture had the appearance of a firm string tied round the bowel. An ulcerated opening was discovered in the intestine, at its most constricted part.

Original Communications.

TEN YEARS OF OPERATIVE SURGERY IN THE PROVINCES.

By Augustin Prichard, Esq., Surgeon, Clifton, Bristol.

IV.—Operations on the Genito-Urinary Apparatus.

[*Continued from page* 953.]

Amputation of the Penis. Case cxxii. W. D., aged 43, had for some time great induration and swelling of the prepuce, with ulceration and thickening of the glans penis, commencing eighteen months before his admission, with a small hard point on the inner side of the prepuce. He had always a long prepuce. His general health was good, and the inguinal glands were unaffected.

I was obliged to remove the entire organ down to the pubes. Considerable retraction ensued, and there was active hæmorrhage for awhile from vessels requiring a ligature. I attached the skin to the mucous membrane of the urethra by three sutures. He went on well until the evening of the fifth day, when hæmorrhage came on, and I had to tie a portion of the corpus spongiosum, from which the blood flowed freely. He lost a large quantity of blood in this way. The wound soon healed; but there was some disposition for the opening of the urethra to contract; and when he went out, he was directed to pass now and then a portion of bougie. I never heard that the disease returned.

In connexion with this case, I may mention one also involving loss of the penis, which I can scarcely describe as an operation case. A married man, aged 23, the father of a child or two, came under my care, having suffered for nearly two years from chronic phagedenic ulceration, which had eaten away nearly all his penis. I applied nitric acid (under chloroform), and gave him good diet; and, as this application failed, I applied a saturated solution of the chloride of zinc, under which the parts healed rapidly, leaving two irregular pendulous portions, which I considered to be stumps of the *corpora cavernosa*. They were about half as long and thick as my little finger, and seemed to have but little vitality, and no relation to the urethra; and, as they were sore and inconvenient, I cut them off, leaving him in the same condition as the man whose penis I had amputated for malignant disease. A smart hæmorrhage followed this little proceeding, but it stopped; and he was discharged; cured, I may add, of his disease, but quite shorn of his penis.

Circumcision. Case cxxiii. J. B., aged 10, admitted with congenital phimosis. The urine came with considerable difficulty through an opening about as large as a pin. I passed two needles through the prepuce, cut it off, divided the mucous membrane, and stitched it back in place. The sutures were removed the third day, and he was soon cured.

Case cxxiv. J. C., aged 10, with congenital phimosis. The operation was performed as in the other case. The sutures remained until the third day, and the boy was soon cured.

The following cases are where the phimosis was acquired.

Case cxxv. A. B., aged 11, was bruised two years before his admission, and phimosis gradually ensued. The operation was performed as usual, two sutures being used. He went out cured in a few days, much pleased with his power of making water freely.

Case cxxvi. J. S., a blind lad, aged 18, received a kick when he was ten years old, and since that time he had increasing difficulty in making water; the glans and prepuce were adherent, and the orifice almost invisible. In this case, I was obliged to cut through the prepuce, and then strip and dissect it away from the glans; and, after passing two needles through it, I removed it completely, tying the threads so that the wound was lessened. The stitches were removed on the fourth day. It was requisite to dilate the orifice of the urethra occasionally with a bougie, as the healing took place; and I directed him to pass a piece of it now and then after he went out. He made water in a good stream.

Case cxxvii. J. H., aged 20, with phimosis of eight years standing. The operation was performed by slitting up the prepuce, cutting it off, and bringing the skin and mucous membrane together. One vessel bled so freely that it required a ligature, and as it healed he suffered considerable pain. The ordinary lotion of the acetate of lead proved to be the most comfortable application. He was soon cured.

Case cxxviii. D. S., aged about 40, with phimosis of some years standing. In this case, I slit up the prepuce, cut it off, and sewed it up. It healed, but not quite so quickly as usual; for the man's skin was quite covered with an eczematous eruption, which interfered with the cure.

Case cxxix. A. N., aged 36, was admitted with ulcered leg, phimosis, and, besides, a scar almost closing the urethral orifice; and the latter inconvenience was so great that he asked for relief, which he easily obtained by my slitting up the opening of the urethra with a sharp pointed bistoury. The result of this operation, and his increased freedom in making water, relieved him so much that he asked me to circumcise him, an operation I had before advised him to undergo. I therefore passed in some needles, trimmed off his superabundant prepuce, and stitched the parts together by means of six sutures. The wound soon healed.

Case cxxx. A. C., aged 14, bruised his penis six weeks before admission, at which date he had phimosis, with much induration and swelling. After using various means to get rid of the inflammation and thickening, I circumcised him, and he was speedily cured.

Operations for Hydrocele and Diseased Testicle. In the following statement of cases of the cure of hydrocele, I have made no note of those which were simply tapped and sent away. They are narrated in the order in which they occurred.

Case cxxxi. B. D., aged 36, had been already tapped once, but the fluid returned, and the swelling interfered with his work. I injected half a drachm of the compound tincture of iodine, with a drachm and a half of water, after removing the fluid. He complained of much pain afterwards, and by the fifth day the scrotum was almost as large as before the operation. The swelling from this time gradually subsided, but he was not cured completely until six weeks had elapsed.

Case cxxxii. J. F., aged 52, had a hydrocele of only a few months standing. I tapped it, and drew off some dark coloured thin fluid, followed by flakes of fibrine; and injected a drachm and a half of the compound tincture of iodine, to two and a half of water. In three weeks the tumour was as large as ever, and hard; and I repeated the tapping and injecting, with an exactly similar result. Some time after this, finding no disposition in the tumour to shrink, I laid open the tunica vaginalis, under chloroform, and found a surface covered with gelatinous lymph, the result of the former operations. This surface was wiped dry with a sponge, and filled with lint. The wound gradually closed, and he was cured.

This was originally a mixed case of hydrocele and hæmatocele. The examination of the fluid that was drawn off showed chiefly broken down blood-corpuscles; and it would have saved the patient some weeks residence in the Infirmary, if I had laid open the cavity at first.

Case cxxxiii. W. H., aged 17, had been tapped twice before I saw him, but the disease had returned. I injected half a drachm of iodine to a drachm and a half of water. In two days, the swelling was as large as ever; but it soon subsided, and he went out cured.

Case cxxxiv. J. J., aged 50, had been frequently tapped for hydrocele of the right side, and had undergone an operation for strangulated inguinal hernia upon the same side. I tapped and injected the hydrocele; on the third day, it was as large as ever, but it soon shrank, and he was cured.

Case cxxxv. A. S., aged about 40, had been already tapped, without a cure being effected. I tapped, and injected the iodine; and he was cured in about two weeks.

Case cxxxvi. T. K., aged 58, a sailor, much accustomed to have his hydrocele tapped. I injected the solution of iodine as usual, and within an hour it was found in his urine. After the return of the swelling, it again subsided, and he was cured in about a fortnight.

Case cxxxvii. M. B., aged about 35, had a small hydrocele, which he was anxious to get rid of. I tapped it, and introduced on a probe a grain of the nitric oxide of mercury. He suffered little or no pain; and he went out cured, without any further return of the swelling.

Case cxxxviii. The last case, in which the nitric oxide was used instead of the iodine, was so successful that I determined to try the plan again, and used it on this patient, who had a hydrocele about as large as an orange. He was twenty years of age. The operation was as before; and he went on well for two days, when excessive inflammation came on, requiring leeches and fomentations; and the scrotum became very red and painful, and suppurated at the upper part. He suffered a great deal of pain and constitutional disturbance, but was eventually quite cured.

Case cxxxix. The pain and prolonged inflammation which the last patient suffered made me give up the nitric oxide plan, and return to the iodine, which had never failed me. I therefore tapped and injected as usual this patient, and he was soon cured.

Case cxl. B. C., with large hydrocele of the right side. It was tapped and injected as usual, and its subsequent course was satisfactory.

Case cxli. T. M., aged 40, had also a very large hydrocele of the right side, from which I drew twenty-four ounces of serum glistening with cholesterine, and injected one drachm of compound tincture of iodine to two of water. He was speedily cured; and in this instance there was but little of that swelling that is generally the immediate consequence of the injection, before absorption and adhesion took place.

Remarks. I have nothing new to report respecting the operation. I always make a puncture with a lancet before introducing the trocar; and I believe that, for the radical cure, the plan of iodine injection is the best. The little that I have seen of the mode of treatment by wires has not been encouraging.

Castration. Case cxlii. J. W., aged 33, with ulcerating carcinoma of the right testicle, of two years standing. He was a weak, unhealthy subject, with shortness of breath and enlarged spleen. I operated under chloroform, and removed a large hard testicle, with the adherent and ulcerated skin. I stripped it up from the subjacent textures easily, and divided the cord last. Two vessels required ligature; and I inserted two sutures, to bring the parts together, leaving the wound partially filled with lint. Notwithstanding this, bleeding came on at night; and the wound was opened, and one vessel required to be tied. This retarded his progress, and he seemed to be long recovering himself. He went out quite well, after about six weeks stay; and I never saw him again. The microscopic appearance was very characteristic.

In connexion with the foregoing case, I may briefly mention another, in which the patient appeared much more constitutionally affected, and the local disease seemed worse, but who was, nevertheless, cured completely without operation. A man was admitted under my care with a large ulcerated swelling of the scrotum upon one side, which had existed many weeks, and which had a dark, unhealthy aspect, and discharged sanious matter with the most fetid odour. At the first view of this case, I thought it must be of a malignant character; for, besides the local disease, the man was sallow, extremely emaciated, with hectic, and he had enlarged inguinal glands. The history, and the appearance of laminæ in some of the edges of the tumour, led me to suspect that it was not cancer; and the result proved that it was hæmatocele, following a blow, which had suppurated; and the layers of hard fibrinous matter, which clung in concentric order to the sides of the tumour, as is the case in aneurism, were being destroyed and cast off. I assisted in this process with the scissors and forceps, and ultimately removed the whole disease, leaving a healthy testicle behind; and, with the aid of wine, quinine, and cod-liver oil, he regained his health entirely.

It has appeared to me that hæmorrhage has followed a few hours after the operation for diseased testicle so frequently, that on future occasions I should prefer to leave the wound entirely open, and allow it to granulate, as in the case of hæmatocele.

Operations upon the Female Organs.

Removal of Enlarged Clitoris. Case cxliii. J. W., aged 21, had a swelling of the size of an apple at the upper part of the fissure, between the labia, apparently resulting from gonorrhœa. I removed it by simple incision; and, upon examination, it appeared to consist chiefly of an enlargement of the clitoris, especially of the *preputium clitoridis*, with effusion of fibrin and serum. The divided vessels bled very freely, and three required ligature. She went out cured in a few days.

Case cxliv. C. C., aged 25, was admitted with a tumour of the clitoris, of the size of an orange, with an irregular warty surface. I removed it by incision; and there was copious hæmorrhage from numerous vessels, which sent out the blood with considerable force in every directien. Four were tied, and lint dipped in turpentine applied over the surface. She went out cured, but not for some weeks, as there was considerable induration in the surrounding parts.

Case cxlv. M. D., aged 59, was admitted with a tumour of a vascular nature at the orifice of the *meatus urinarius*. It was not so red and vascular as the smaller tumours seen at that part. I removed it, and it was about as large as a filbert. I tried to cut through its base with the galvanic cautery at first; but the wire would not pass through, and I therefore cut it off with a knife and tenaculum, and cauterised the bleeding surface with a heated galvanic wire. A catheter was placed in the urethra.

Within three weeks the disease had returned, and it was necessary to operate again; and therefore, after removing it, I applied potassa fusa to the part, and made a considerable slough. This had the desired effect; and she went out well, and was well some years afterwards, when I last saw her.

The age of this patient was against the idea that the tumour was one of the ordinary vascular tumours at the orifice of the *meatus urinarius*, and I believe it to have been an epithelial cancer. I much regret having kept no record of the microscopic appearance of it.

I have also treated three cases of the ordinary vascular tumour with scissors and the application of caustic to the cut surfaces; and all with success. In one, the growth extended into the canal; but, upon firm traction, the whole of it could be reached. There was nothing very specially worthy of record in their history; one of the patients was upwards of forty years of age.

Epithelioma of Vagina. Case cxlvi. This was a woman about fifty-five years old, in whom a tumour had been growing for some years from the anterior wall of the vagina, near its orifice. She was married, but had never been pregnant. There was a good deal of induration about the part. I removed a considerable portion of the mucous membrane with the diseased surface by means of ligatures, passing a needle armed with a strong thread through its base; and, as soon as the slough came away, I touched the parts repeatedly with a saturated solution of the chloride of zinc, under which treatment the disease seemed to yield, and I ceased to attend her. I am sorry to say that I have had no opportunity lately of hearing how she is; but, many months after the application of the caustic, her husband told me that she was much better.

Obliteration of the Vagina. Case cxlvii. E. C., aged about 25, had suffered from sloughing of the vagina from protracted labour, and the opposite surfaces afterwards united. She had undergone an operation with a view to restore the cavity; but the only result was to open the bladder near its neck, thus making a fistulous opening.

I applied a red hot iron to this opening; and, with a finger in the rectum, I attempted to cut open a cavity that should avoid the bladder and reach the uterus. After a long trial, I failed, and could not reach that organ, as so much of the substance of the vagina had been lost. A plug was inserted into the opening made, and it seemed more promising; but after a few days she became discontented, and went home. I afterwards heard that other attempts of a similar kind were made on her, with a like result.

Case cxlviii. E. B., aged 22, a tall country girl, suffered from periodical pain in the lower part of the abdomen and inguinal regions, but without tumefaction. There was no trace of vagina; the urethra was normal; but the nymphæ joined together below, instead of being separated by a cavity.

I operated; and, with a catheter in the urethra, cut below into the cellular tissue between the rectum and urethra; and, after stripping away the parts for some distance, I felt something hard like the os uteri, as if it was covered with a thick membrane. I therefore drew down the tissues with a forceps and hook, and divided them carefully; the tissue was very hard and white. After doing this several times, and exposing the hard body to the finger more distinctly, I suddenly cut into some cavity, and a small round mass dropped out like a piece of jelly; and I at once concluded that I had arrived at the os uteri, and that a plug of mucus had escaped. Upon introducing the finger, however, it passed through an aperture into a cavity, in front of which could be felt a smooth hard body, like the back of the uterus; and I was persuaded that I had cut into the peritoneal cavity, and this alarming idea was much strengthened by our discovery that the clear mass which escaped was a genuine hydatid.

No bad symptoms followed. She went out in about three weeks, with a cavity that felt to the finger exactly like the natural vagina; and I directed her to wear a boxwood plug, to keep it open.

I have been unable to get any accurate account of this patient since she left my care; but the prospect was not very promising.

[*To be continued.*]

TUBERCULAR MENINGITIS.

By William Curran, L.R.C.P.Edin., M.R.C.S., etc., Assistant-Surgeon Army Staff.

In connexion with the subject of tubercular meningitis, recently discussed and illustrated in the Journal by Dr. Hill of Bath, I find, on looking over the registers of the military hospital at this station, reports of two cases which have occurred within my own recollection, and which may, in abstract, prove interesting to those who, like myself, looking beyond the surface and making allowance for the operation of general causes and systemic relations, ascribe many transitional diseases to the force of sympathy and the influence of metastasis in the human frame. As, however, it is not my wish or intention to discuss or inquire into the relative share or influence of either of these somewhat questionable conditions in the production of this or any other disease, and premising that, if memory fails me not, I could bring to mind other instances of a similar complication, as observed by myself at Brompton and elsewhere, I now proceed to give in outline some prominent particulars of the two cases above referred to.

Case i. Sergeant Thos. McN. was readmitted on the 30th of October, complaining of intense aching and throbbing of the temples, diffused frontal pain, insomnia, and persistent headache. He had suffered more or less for the last four days; he felt his head sometimes splitting, and as if pressed in a vice; but said the pain had somewhat intermitted since his admission to hospital. He stated that he was not so much troubled with dizziness and flashing as previously. He suffered from a chronic irritable cough, of varying severity; his expectoration was rather scanty, but generally purulent, and occasionally tinged with blood; and, when he was last in hospital, percussion elicited a hard metallic note. The chest was found emaciated and receding; his breath was offensive; and the breathing was markedly harsh and defective, accompanied with diffused crackling on deep inspiration, especially on the left side, where also the voice-tone was distinctly bronchophonic under the claviole in front and between the scapulæ on the same side posteriorly. These symptoms had rather increased than otherwise on his readmission; and cavernous gurgling, with progressive dulness and emaciation, gave evidence of the existence of a vomica in each lung. As, however, he was notoriously of very intemperate habits, and was reported to have almost lived on drink for the last few weeks, and as, besides, he was very fidgetty and restless, had a foul, yellowish, creamy tongue, a soft compressible pulse, and a stinking *beery* odour of breath, it was at first doubtful whether the exhaustion of protracted intemperance had not been modified or enhanced by his grave pulmonary disorder; and we were accordingly obliged to temporise, in accordance with the old familiar aphorism which was wont to be quoted by the late Dr. Paris, "Si methodum nescis abstine," to suspend all heroic measures, and to wait for symptoms. He was placed on a low unstimulating diet, with beef-tea and lime-juice; had cold applied to the head; and, after the bowels were freely moved with calomel and castor oil, a blister was applied to the neck, and he was ordered a mixture containing chlorate of potash, chloric æther, paregoric, and cardamoms.

Two days afterwards, the report adds:—"Worse this morning; passed a restless night; was delirious at times, and gropes about on the bedclothes for some imaginary object; he looks stupid and somnolent; is unable to articulate distinctly, or fix his thoughts on any particular subject, but does not appear to have lost the power or sensibility of his limbs; and the pupils, though staring in a state of unmeaning vacancy, are, however, quite regular, and obedient to the stimulus of light."

The cerebral mischief and implication being now recognised, mercurials were administered by the mouth and through the skin. Counterirritation was practised behind the ears and on the neck; leeches were placed on the temples; and the bowels were stimulated with terebinthinate enemata.

On the following day, he had passed his motions in bed; and the catheter was employed to relieve the bladder. He was constantly calling out to some comrade, or muttering incoherently; was either squeezing his penis, or picking at the bedclothes; and, when spoken to, could not be roused to consciousness, or induced to protrude his tongue. In this state he lingered for some days, the breathing meanwhile becoming more obstructed, bronchitic, and embarrassed; the pupils more glistening and vacant; the general weakness more prominent and progressive; and he sank quietly on the morning of the seventh day after his admission.

A *post mortem* examination, thirty-six hours after death, revealed some redness and thickness of the outer membranes, a large accumulation of cerebro-spinal and subarachnoid fluid, with considerable effusion into each ventricle, and dilatation of the foramina at the base of the brain. The right corpus callosum was of a dark muddy colour, and soft pultaceous consistence. The right hemisphere was indeed generally softer and less consistent than the left; the optic nerves were of a dark greyish colour, freely studded with pigmentary stains, and exhibiting on their upper surface numerous enlarged and tortuous vessels. The choroid plexus on the right side was thickened, opaque, and granular, having imbedded in its substance numerous small fibrinous lumps, which, with somewhat similar but smaller miliary granulations from the surface of the arachnoid, were examined with the microscope, and found to consist of ill defined roundish nucleated cells, a trace of oil, some epithelial scales, and much amorphous granular matter. Both lungs were extensively disorganised, being adherent to the sides of the chest, riddled with cavities, and almost entirely devoid of crepitant structure.

On view of the above, the notebook says: "Judging from the symptoms and the *post mortem* appearances, this was more a case of tubercular meningitis than of ebriositas; though the history of the case at first pointed to the latter complication, and his well known habits of intemperance and late irregularities seemed to confirm rather than disprove the suspicion of its existence."

Case ii. This case, though by no means so characteristic as the preceding, is, however, I believe, sufficiently unique and distinctive to warrant me in ascribing its issue to meningeal irritation, consequent on the transference or deposit of tubercular matter in the cerebral membranes. It occurred soon after my arrival at this station, and was but imperfectly reported at the time. I can, however, recall its leading features to mind; and, aided by the scanty notice and assistance of the register, can vouch for the general accuracy of the following details.

J. D. was admitted to hospital complaining of occipital pain, which he described as dull, aching, and continuous; giddiness in the head, singing noises, and great prostration, alternating with occasional faintness and tendency to deliquium. He had been very erratic and unsteady in his movements lately, and was noticed to halt and be oblivious on parade and in other dealings with his comrades. Though tolerably muscular and well nourished, he had for some time exhibited signs of pulmonary derangement, as evidenced by his short hacking cough, some yellowish ropy expectoration, and night-sweating. On examining his chest, I found some dulness and dry crackle at the left apex, subcrepitant rhonchus at the base posteriorly, and general absence of the respiratory rhythm on the same side.