the methylene blue, better pictures are obtained if the fixed film is first washed with water thoroughly, it is then dipped momentarily into the ordinary carbol thionin solution, a saturated watery solution of safranin, or a 2 to 5 per cent solution of gentian violet in water, a 1 per cent. solution of iodine, or methyl-green, lightly washed, and dried. Of these, safranin and iodine-green give the best and most lasting pictures. Mounted in oil, and even in balsam, all these stains gradually diffuse out and disappear. The method of rendering aniline dyed preparations permanent is yet to seek. The colours fade from the organisms on prolonged exposure to air, but can be restored by dipping in the appropriate solution afresh. It is thus better not to mount specimens required for reference, but simply to keep them in the dark in an air-tight box, and re-stain them when required. But to this there is an objection also, in that after a few months the corpuscles become altered and decay. Dipping the specimen in a saturated tannic acid solution in water for a second or two, after washing, and drying, renders them more permanent. Probably this is due to the hardening of the corpuscle.

Counter-staining of the corpuscle, and other blood-elements is not necessary for the perfect definition of the mycoid. But the employment of counter-stains is useful, in helping the inexpert to distinguish, for instance, between mycoids, which their own overgrowth, or the dissolution of the enclosing corpuscle has left free in the plasma, and blood-plates, or albuminous constituents naturally present in the serum, or dissolved out from the formed elements during citration, and precipitated afterwards. Two such methods may be mentioned:—

(1) Stain thoroughly the fresh blood, by prolonged soaking in M. B. K. C. solution, or the fixed film, by treatment with saturated aqueous solution of methylene-blue. Wash in water, dry. Dip momentarily in watery safranin solution. The mycoid bodies and nuclei of leucocytes retain the blue, which, however, is at once displaced from the blood-plates.

(2) Stain the formalin-fixed film with gentian-violet (half-saturated alcoholic or watery solution) for one second, wash (and remove solution). The mycoids, nuclei of leucocytes, and plates are stained in shades of violet. Dip next momentarily in ammonia-picro-carmine (1 per cent. solution). The nuclei and platelets retain the violet colour, but the mycoids are decolourised. They may be restained by further treatment). The stroma of the r.b.c. is green.

(3) Stain the film in safranin, concentrated watery solution, for from one to ten seconds wash, and dry. Safranin stains the mycoids instantaneously in either watery or alcoholic solution. If a light staining only be given, the mycoids and blood-plates are both rose-pink, the nuclei more deeply stained, but of the same hue. Further staining only accentuates these differences. Dip in sublimate solution for a second or more. The tint of the mycoids is changed to orange, while the plates lose their colour altogether. Wash, dry, dip in weak (2 per cent.) watery gentian-violet. The plates are now stained light violet, the mycoids remain as before of an orange tint, while the nuclei are rose-red.

(To be continued.)

A Minyon of Hospital Practice.

IMAMBARAH HOSPITAL, HUGHLI; NOTES ON SOME SURGICAL CASES.

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DURING the period of a year and a half which I have spent at Hughli, the following surgical cases, which are of some little interest, came under my notice, and were operated on by me in the Imambarah Hospital. Comparatively little operative surgery has ever been done at this hospital. The district is at best a small one, while from fully one-half of its area, it is both easier and cheaper to resort to Calcutta than to go to the *sadar* station. A certain number of amputations, chiefly for accidents on the railway, or in the neighbouring mills, are performed; a few cases of cataract come for extraction, and there is a little miscellaneous surgery, such as excision of tumours, &c.; but Hughli is never likely to be much of a field for an enthusiastic surgeon.

CASE NO. 1—*Castration for tuberculous testicle.*—Omar Ali, Mussalman male, 35, was admitted on 29th September, 1900, with a sloughing ulcer of the scrotum, which was said to have followed an attack of swelling of the testicle with fever, doubtless orchitis, two weeks previously. The sloughs separated on 1st October, but a sinus persisted and showed no signs of healing. On 29th October, under chloroform, this sinus was laid open. The right testicle was found to be completely disorganised by tuberculous disease, and was removed. The wound healed gradually, and the patient was discharged cured on 23rd November 1900. The only rise of temperature after the operation was to 102 on the evening after operation, and 99·2 the next evening.

CASE NO. 2—*Cartilaginous tumour of buttock.*—Nazir Sheikh, Mussalman male, 40, was admitted on 25th November 1900 with a small tumour, the size of a lemon, projecting from the surface of the left buttock, and greatly resembling a rounded lump of horn. He stated that from childhood he had had, under the skin of the left buttock, a lump the size of a pea, freely moveable under the skin. This gradually increased in size, and reached its present size when he was about 25, *i.e.*, about fifteen years ago. At this time some one made an incision into the tumour, and some stuff came out, which he described as like rotten pumpkin. Evidently this tumour was a sebaceous cyst. Since that time the wound had never healed. The lump began to grow hard about four years ago. At present there is a hard lump, which both looks and feels exactly like horn, about one inch square, protruding half an inch above the skin of the left buttock. On 26th November, under chloroform, the lump was excised, it was of the consistence of cartilage on section. His temperature only once rose above normal, on the evening of 29th November, when it was 100·2. The wound healed by first intention, and he was discharged cured on 4th December 1900.

CASE NO. 3—*Liver Abscess.*—Badri Mia, Mussalman male, 36, was admitted on 28th February 1901, suffering from abscess of the liver, bulging under the edge of the right ribs, in the

right hypochondrium. The patient admitted that he was in the habit of taking liquor; he said that he had been feeling ill for the last twelve days, but that he had had no fever. His temperature that evening was 100. The next morning, 1st March, a fine trocar was inserted into the swelling under chloroform About 16 ozs. of reddish fluid, like bloody serum, came out, followed by a few drops of reddish pus. The swelling was then freely incised, and 20 ozs. thick brick-red pus issued from a cavity about four or five inches in diameter, from which eight ounces more pus were then washed out. A drainage tube was inserted. This tube was removed on 19th March, but had to be reinserted again on the following day. It was again removed on 4th April, but had to be put in again four days later on the 8th. The cavity was then washed out daily with tincture of iodine solution. The tube was finally removed on the 24th April, and the patient was discharged cured on 28th April. The interest of the case lies in the fact that, from the day of operation to the day of discharge, a period of 59 days, the temperature never once rose above the normal.

The patient again came to hospital nearly a year later, on 22nd April, 1902, with a large fluctuating swelling immediately below the scar of the old incision. He said that he had kept good health till this swelling began to appear, some twelve or thirteen days before and that he had had no fever. This abscess burst spontaneously a few hours after his admission. On 23rd April, under chloroform, the abscess cavity was explored. It was found to extend backwards for three inches into the loin, under the muscles of the abdominal wall; it was superficial, and had no connection with the liver. A counter-opening was made in the loin, and a drainage tube passed through from front to back. At the date of writing (24th May) the man is still under treatment in hospital. The upper and anterior wound has healed, the lower one still remains open, with a sinus two inches long, extending from it. As on the previous occasion, he has had no fever while in hospital.

CASE No. 4—*Spontaneous Gangrene.*—Naya Ram Bagdi, Hindu male, 30, was admitted on 1st August, 1901, with gangrene of the right foot, said to be of two months' standing. The tarsus was covered by a large stinking ulcer, in which the metatarsal bones were lying loose, the phalanges had rotted off. The ulcer extended up the front of the leg to a point three inches above the inner malleolus. The pulse in the left wrist was full and strong, in the right wrist imperceptible. The left femoral artery was also much stronger than the right. The right leg was amputated the same day, under choloroform, six inches below the knee. Only a few drops of blood were lost. The wound was stitched over a drainage tube and dressed. That night, and again on the night of the 4th August, the patient took off all his bandages. When dressing the wound on the 6th, it was found gaping wide, all the stitches had come out. On the 7th a small ulcer appeared on the dorsum of the second left toe, at a place which he said he had scratched. From this scratch gangrene followed. First the second toe, then the other toes dropped off, finally the whole soft parts of the dorsum of the foot sloughed off, leaving the metatarsal bones exposed and loose. In this state he was removed by his friends on the 14th August, and no doubt died within a few days. Meanwhile the amputation wound did not slough, but showed no signs whatever of healing, the flaps lay loosely over the ends of the bones. His temperature varied from 99 to 102, and he was at times delirious.

As the amputation wound on the right leg showed no sign of healing, it was considered that no good could be effected by the performance of a second amputation.

CASE No. 5—*Cyst of neck and floor of mouth.*—Sukchand, Hindu male, 28, admitted on 26th December 1901, with an elastic tumour, apparently the size of a hen's egg, in the floor of the mouth, pressing up the tongue which was adherent to the upper surface of the tumour almost up to its tip. He said that the tumour was congenital, but had increased greatly in size during the last three months. On 26th December, under chloroform, an incision, two inches long, was made in the middle line of the neck, from the centre of the jaw downwards, and the tumour gradually worked out with the fingers. It proved to be a sebaceous cyst, full of a very thick solid matter, like white wax in appearance, and fully as large as my clenched fist. It was got out entire without rupture. The wound was stitched over a drainage tube. Although the floor of the mouth was not opened up, considerable suppuration followed, with burrowing of pus down the right side of the neck, for which a counter-opening had to be made over the upper end of the sternum on 4th January, when a drainage tube was put in from the upper to the lower wound. Two large sloughs were removed, one from the original wound on 4th January, the second from the counter-opening below on 6th January. He was discharged from hospital at his own request on 18th January, and attended as an out-patient till the wound healed.

Although the floor of the mouth was not opened during the operation, I think that probably the wound was infected from the mouth. It was curious that, with profuse suppuration going on in the neck, and immediately under the floor of the mouth, he never had any difficulty in swallowing. The final result was quite satisfactory.

CASE No. 6—*Mycetoma, or Fungus Foot.*—Puti Sheikh, Mussalman male, 60, was admitted

on 26th March, 1902, with a fungating ulcer, two inches in diameter, raised above the level of the surrounding parts, on the right heel. He stated that this ulcer began to develop about six months previously, following an injury from a thorn piercing the foot. He had also some enlarged glands in the right groin. The ulcer was excised, under chloroform, on 29th March, when the ulcerated mass was found to be ¾ of an inch in depth, the incision was carried through healthy tissue. At the same time an incision was made over Scarpa's triangle in the right thigh, and one gland the size of a large lemon, with three smaller ones, were excised. The glands were got out whole and unbroken, but on cutting into them the gland tissue was found softened and breaking down, and as black as ink. The glands, in fact, much resembled masses of blood clot. Their black colour was visible as soon as the superficial tissues had been divided. The wound in the groin had healed by 5th April, that of the foot healed very slowly, though assisted from time to time by numerous skin grafts; by 8th May this wound had healed, and he was discharged cured.

I have seen and operated in some half a dozen or so of cases of mycetoma, but I do not remember ever to have previously noticed enlargement of the glands in the groin in connection with any of them; and certainly never excised glands in any of the previous cases; so the black appearance of the glands was quite new to me.

CASE NO. 7—*Congenital (?) absence of intercostal muscle.*—The following case was seen, not at the Imambarah Hospital, but at the jail. Hari Ghosh, Hindu male, 60, No. 4938B, was admitted to Hughli Jail on 21st December 1901, with a sentence of two years' rigorous imprisonment. The sixth left rib runs outwards underneath the left nipple, which is situated over the upper border of the rib. The sixth and seventh ribs unite about one inch internal to the nipple. From their junction, outwards and backwards over a space 3½ inches long by 1¼ inches broad, the muscular wall of the chest appears to be entirely wanting, the lung being covered only by the skin and pleura. On quiet respiration the skin over this space sinks about half an inch below, and rises about a quarter of an inch above, the level of the ribs which bound the space. On coughing the lung is forced out through the gap in a globular mass which rises an inch above the level of the chest wall.

On first seeing the man I supposed that he had undergone resection of a rib. He himself states that the condition was caused by the blow of a bullock's horn, when he was about ten years old. But the fact that no scar of any kind is visible anywhere near the place seems to negative both these views, and I presume that the deficiency must be congenital.

SUCCESSFUL OPERATION FOR CEREBRAL ABSCESS.

BY SATIS CHANDER BANERJEE,
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SARODA, Hindu male, *æt.* 32, a shop-keeper by occupation, was admitted in Lieutenant-Colonel Lukis's Ward, Medical College Hospital, on the 2nd August, 1902.

He stated that about five months previous to his admission after a chill and exposure to cold he had running from nose and severe pain at his right ear, followed shortly by purulent discharge, which continued for two months. Severe headache came on with the stoppage of the discharge. Shortly after he had fever with delirium coming on with rigor, which was cured within a fortnight, but a constant dull aching pain in the head continued. Simultaneously with headache he began to vomit two or three times a day, not necessarily after food, and he had dimness of vision in his right eye. The headache and vomiting though not so frequent as before remained persistent. About a fortnight ago he noticed fine tremors of his left thumb and index-finger, which gradually increased up to the time of admission.

There was no history of syphilis or gonorrhœa. His *complaints* were, constant intense headache, worse in the morning, and purulent discharge from and pain in his right ear.

The headache, which was daily increasing in intensity, started from the right temporal region and radiated upwards and backwards. There was intense pain and tenderness a little in front of his right ear near the zygomotic process and over the parietal region about an inch behind and above the right ear; the tenderness being most marked at the latter situation.

There was pain and tenderness over the distribution of the fifth nerve of the right side. There were spasms of and tenderness in the right sterno-mastoid and trapezius.

The right eye used to water. He could not count fingers with his right eye. On ophthalmoscopic examination, the right disc was found swollen, margins not distinct, veins distended; left eye was normal.

He could not hear ticking of watch with his right ear at a distance of an inch, but could hear tuning fork on the mastoid process. Tympanic membrane was perforated, and there was pus in the middle ear.

There were clonic spasms of the right thumb and index-finger, the movement in the thumb being lateral, and in the index-finger antero-posterior.

Knee-jerks were exaggerated on both sides. No ankle-clonus; no peculiarity in his gait. Temperature was *normal* all along.

Digestive, respiratory and circulatory systems were normal.