poisoning, was independent, and continued after all symptoms of belladonna poisoning had disappeared, but subsequently greatly improved under treatment.

CASE OF CHLORODYNE POISONING, WITH RECOVERY.

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C. H., a Parsee lad, aged 18, was found one morning by his parents lying unconscious in his bed. They stated that he was perfectly well about 8 o'clock that morning, and when, about 10 o'clock, they happened to enter his room they found him breathing laboriously. They tried to awake him; failing in their effort they immediately sent for me.

On my arrival, I found the lad lying unconscious in his bed, drenched with profuse perspiration. The whole body was quite cold to the touch, the pulse imperceptible at the wrist, and the breathing embarrassed, the respirations being shallow and quick.

On auscultation, the heart sounds were found to be very feeble and fluttering, without any rhythm, and the heart's impulse was quite visible about an inch outside the left nipple line.

I immediately injected over the cardiac region a syringe of ether, followed soon by another injection of ether and tincture of digitalis $\text{m} \times$. After this the pulse could be felt at the wrist, and though at first very frequent and soft, in about twenty minutes it became full and slow. After the injections I had applied mustard plasters to the nape of the neck and over the cardiac region, and also fomentations of hot carum ajowan seeds were applied all over the body.

On auscultation over the lungs, air was heard to enter quite freely, no adventitious sounds being heard excepting the stertor. Respirations were shallow and about 45 per minute. Breathing in the beginning was of the snoring character, but after the injections it became quiet and regular. The pupils were equal, regular, in a state of moderate contraction, and they responded well to light. The tongue was dry, and appeared white and shrivelled as if some acid had been taken.

On inquiry being made of his parents, and on searching the room for an empty bottle or a drug, not the slightest clue could be obtained about the cause of this sudden unconscious condition, and, when the possibility of his having taken some poison was hinted, they persisted in stating that the boy was so sensible and of such good behaviour that he was incapable of doing any such act. Under these circumstances I provisionally diagnosed this case as one of syncope form of insolation, wherein I was strengthened by the statement that he had roamed about a good deal the day previously without any head protection.

About half an hour after the second injection, the pulse at the wrist became frequent and soon was scarcely perceptible. The heart sounds also became weak and irregular and fluttered so much that I feared it was about to come to a standstill. So I again injected ether and digitalis; soon after which, the pulse was felt at the wrist and it gradually became full and less frequent till it reached 110 per minute and was of good tension. On percussion the heart was found to be in a state of acute dilatation and the impulse was still visible outside the nipple line. The heart sounds were heard to be regular and stronger than before, but occasionally the contractions failed to produce the sounds in the intervals; though the pulse beat was regular.

Stertor also disappeared, the respirations became full and deep, the whole body was now warm to touch and the sweating also became less. The patient's general condition by this time was much improved, but I had kept on feeling the pulse, which soon began to increase in frequency till it reached 160 per minute. I had already ordered hot coffee to be prepared and when ready I injected about 8 oz. per rectum. The pulse soon resumed its former condition, becoming full, of fair tension and 100 per minute.

About twenty minutes later I again felt the pulse rising in frequency, and it soon began to flutter under my fingers. The heart sounds were like those in a case of tachycardia. I gave another rectal injection of coffee with 2 oz. of brandy, after which the pulse and the heart again became quiet. Soon after the patient became a little conscious; he would draw up his legs when hot fomentations were applied to his feet, and on trying to open his eyelids he would now resist the

act, whereas in the very beginning touching the cornea did not elicit any reflex. His name being shouted to his ears he would utter a little grunt, then turn on his side and would snore away as in deep sleep.

Now the patient, instead of gradually coming round, appeared to become more and more drowsy, as if he had taken some narcotic drug. I continued rectal injections of coffee, and tried to awake him by flapping him on his face with wet towels. About 2 p.m., four hours after my arrival, the patient threw his eyes wide open, and was able to recognize his parents. As he became quite conscious, I gave him a drachm of spt. ammon. arom. with little water to drink, a few minutes after which he vomited, the vomited matter consisting of bile, mucus, and little phlegm, but no odour of any drug could be detected in it. Now he was practically out of danger, talking rationally, and when asked denied having taken any drug or poison.

As I had to see another patient of mine, I sent for my friend Dr. J. R. Vakil, and, having explained to him all the particulars of the case, entrusted the patient to his care. Within an hour after my departure Dr. Vakil noticed the same fluttering condition of the pulse as described before. So he gave a hypodermic injection of brandy, and, as the patient was now conscious, gave him hot coffee by the mouth. Soon the pulse resumed its normal condition.

Meanwhile the patient's brother came home, and, opening his cupboard, found a bottle of chlorodyne unpacked. He brought it to Dr. Vakil, stating that he had left that bottle in his cupboard in a packed condition, and consequently his brother must have opened it, which the patient afterwards admitted to be true.

During his stay there Dr. Vakil had noticed that the heart's impulse was gradually receding, and when I arrived there—at about 5 o'clock—it had nearly resumed its normal position. He was now quite conscious but still drowsy, and his heart sounds being very feeble he was enjoined strictly to keep the recumbent position.

I directed them to keep him awake through that night, and a mixture containing digitalis, strychnine, caffeine, citrate, and spt. aetheris was prescribed. Since then no further trouble ensued excepting severe constipation. The chlorodyne bottle was a half-ounce phial, in which a drachm and a-half was still left, and so the patient must have taken two drachms and a-half of the fluid undiluted. On the label attached to the phial, besides the directions for use, the only statement given about its constituent parts was that it contained one-eighth of a grain of morphine in 30 minims. No proportion of hydrocyanic acid was given.

CASE OF ACUTE ALCOHOLIC POISONING IN A CHILD AGED 4 YEARS: TREATMENT BY SALINE INJECTION: RECOVERY.

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I was sent for hurriedly a few weeks ago to see a young child who "had been poisoned." On my arrival I was told that the child—a boy aged 4 years—had, three-quarters of an hour previously, swallowed 2 oz. of neat whisky. His father, who was a potman, had left the whisky—a measured quantity—in a small corked flask, and the child had removed the cork and drank the contents, telling his father, who came in a few minutes later, that he had "drank it all."

This was taken about 8 a.m. on an empty stomach. As the child soon "began to lose himself" I was sent for, and when I saw him at 8.45 a.m. he was lying insensible on a sofa; his temperature was 97°, his skin cold and clammy, the respirations shallow and sighing, and the pulse irregular and uncountable, his general condition being one of profound collapse. The corneal reflex was absent, the pupils being dilated and slightly reacting to light—a sign which is regarded by Luff as favourable. There was a strong odour of alcohol in his breath. There had been no vomiting.

After giving a hypodermic injection of strychnine sulphate ($\frac{3}{8}$ gr.), I proceeded to siphon out the stomach. The siphonage smelt strongly of alcohol, and the father volunteered the statement that the whisky was of "extra special strength." The child, though wrapped in blankets, with hot bottles round him, and cloths constantly rung out in hot water placed on the chest, was as deeply comatose as before, and

seemingly dying from shock. A further hypodermic injection was given of strychnine ($\frac{1}{8}$ gr.) and digitalin ($\frac{1}{8}$ gr.), and the child placed in a tub of hot water and vigorously rubbed. The improvement, if any, was very slight.

At this stage I thought of trying the effect of a warm saline solution per rectum, having no apparatus at hand for employing the intravenous method. Most of the injection (about 1 pint) was retained, and I had the satisfaction of seeing my patient slowly rally from his collapse, so that about half an hour later he was able to take some hot beef-tea by the mouth. From this stage his recovery was rapid, and next day he was playing about as usual.

Since alcohol, owing to its high diffusive power, is so readily absorbed into the blood vessels, it would seem reasonable to try and dilute the poison in those channels, in addition to helping the kidneys to eliminate the toxic products. It has been stated that saline solutions given per rectum are useless if the patient is much collapsed, as the fluid is not absorbed; but practical experience would point to the contrary, and I would strongly urge the beneficial effects of the rectal administrations of saline solutions, as witnessed in cases of shock following prolonged labour, operations attended with considerable haemorrhage, and after severe injuries. I do not attribute the happy result in this case entirely to the saline injection, since other remedial measures were adopted, but I am convinced of its great efficacy.

In summing up, the interesting features of the case are: (1) The amount of concentrated alcohol ($\frac{3}{4}$ j of strong neat whisky) in proportion to the age of the child; Luff states that a child died after taking $\frac{3}{4}$ j of gin. (2) The rapidity of the onset of insensibility, no doubt due to the stomach being previously empty. (3) The beneficial result consequent on the saline injection.

CASES OF ANGIOMA OF SYNOVIAL MEMBRANES AND OF MUSCLE.

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THE following cases of angioma or naevus affecting the synovial membrane of some of the larger joints and, in some instances, the adjacent muscles may be of interest both from a diagnostic point of view as well as from the fact that they have hitherto attracted, little attention.

CASE I.—Florence S., aged 15, was sent up to me in June, 1892, by Dr. Fraser, of Romford.

History.—Three or four years previously she noticed a swelling, a little bigger than a pea, just above and to the outer side of her knee. The swelling gradually increased and at first was only occasionally painful, but had been much more so during the last month. In addition to the gradual increase occasional variations in size were noted.

Present Condition.—There was a swelling about the size of a hen's egg on the outer side of the thigh just above the knee. The skin over it was natural and it was evidently deeply placed, apparently involving the upper and outer part of the *cul de sac* of the synovial membrane. Its outline was indistinct and consistence elastic. It was noted that on passing the hand down the thigh towards the swelling the latter seemed to become harder and to increase in size.

Operation.—I first punctured the swelling with a trocar, and blood only came away. An exploratory incision was then made and the tissue opened up contained a large number of dilated vessels. On still further enlarging the incision the tumour was found to be an angioma involving the upper part of the synovial membrane and the vastus externus and crureus. It extended upwards $\frac{1}{2}$ in. above the knee joint and across the anterior surface of the femur to the inner side. It was removed with some difficulty owing to haemorrhage, the knee-joint being freely opened and the affected portion of the synovial membrane excised. Bleeding was arrested by ligatures, capillary oozing by the actual cautery, and the wound was plugged with iodoform gauze. Next day the plug was removed, the wound closed with sutures, a drain being left in the upper part. There was some suppuration at the upper part of the wound, but the knee joint was unaffected, and the patient left the hospital with the wound soundly healed and a freely movable knee.

Microscopical Examination.—Sections of the affected muscle showed bands of connective tissue and fat lying between and around the muscle bundles. Within these were very large and some smaller irregular cavernous spaces. The walls of the larger spaces were, as a rule, very thin, but in places a thin band of unstriated muscle could be traced. The walls of the smaller spaces were thicker. There were also blood vessels, showing irregular dilatations of their lumina, whose walls possessed a distinct layer of unstriated muscle.

I have since met with a precisely similar case, also in a young woman, in whom an angioma involved the upper part of the synovial membrane of the knee-joint and the adjacent

muscles. In this case the diagnosis was made owing to the resemblance to the case first related. I am unable to give details owing to the notes having been mislaid.

Fig. 1.—From Case I; section of muscle with large vascular channels.

CASE II.—I saw Master D., aged 10, with Dr. J. Burton, in March, 1898. The left knee had been painful, without evident cause, for four or five years. The pain was increasing, and he had begun to experience difficulty in moving the joint. Latterly a swelling had appeared on the inner side. He stated that the knee started in his sleep. A maternal uncle and one of his cousins had died of consumption.

Present Condition.—On the inner side of the left ligamentum patellae was a prominent swelling which was elastic over the inner two-thirds and fairly well defined over the outer third. The swelling, after use of the limb, became hot, tender, and red. The skin over it was normal. Measurements showed a diminution of circumference of the left thigh of 1 in. and of the left calf $\frac{1}{2}$ in. The circumference of the knee-joint over the patella was unaltered, but above it the left thigh was diminished owing to the wasting of muscle. It was thought to be a case of localized tuberculosis of the synovial membrane such as I have occasionally met with; and as the function of the joint was becoming impaired I advised operation.

Operation.—A transverse incision was made, extending from the inner side of the ligamentum patellae, over the inner aspect of the joint and following the line of the articulation. The capsule was opened and a roundish swelling of a yellow colour exposed, presenting at first sight the appearance of caseous tubercle; it was, however, spongy in consistence. Its real nature was recognized by an incision, and it was completely removed. The capsule of the joint was united with silk and the skin sutured. Primary union took place, and movement of the joint was completely restored.

Fig. 2.—From Case II; large cavernous angioma of synovial membrane of knee.

Microscopic Examination.—The sections presented the typical appearance of a cavernous naevus. The blood spaces were very large, freely communicating, and with very thin walls. In parts of the section there was a good deal of dense, fibrous tissue.