

have not seen a case of typhoid fever in which the knee jerk was lost; though the jerk may have been absent on the day or so preceding death in fatal cases, which are rare at the age at which tubercular meningitis is common. On the other hand, tubercular meningitis does not always cause the disappearance of the knee jerk. Sometimes the knee jerk is increased in cases of undoubted tubercular meningitis, but only, I believe, when the child is unconscious or nearly so. I have even observed, in company with Dr. Gee, that tapping of the patella tendon on one side caused powerful contraction not only of the quadriceps extensor of the same side, but also of the adductors of the thigh of the opposite side, in a case of tubercular meningitis. Such phenomena will not be found to be very uncommon if they be diligently searched for. I have myself seen them in diphtheritic paralysis, as well as in tubercular meningitis and phthisis. In order to answer so far as is possible the question which forms the title of this brief communication I shall formulate the following propositions: Given a case of fever with morbid mental phenomena, without a typical rash, optic neuritis, or choroidal tubercle, or any sign of cranial nerve paralysis or irritation, if the knee jerk is lost on both sides during the illness, and the wasting of muscle is unattended with loss of response to the faradaic current, the diagnosis should be meningitis rather than typhoid fever. If the knee jerk be exaggerated, and if there be ankle clonus, no certain conclusion can be drawn, for these conditions occur both in typhoid fever and in meningitis (and other conditions). But I am inclined to assert—though on this point I desire further observation and investigation—that increase of the jerks (with or without ankle clonus), accompanied by lively spontaneous flickerings (fibrillar contractions) of the muscles, is much more likely to be due to prolonged pyrexia than to direct disturbance of the nervous functions from meningitis or other nervous irritation. If typhoid fever be complicated with myelitis or meningitis—complications of rare occurrence—then the jerk may be lost, but with a fairly large experience (I have carefully tested the point in twenty-five cases) I have never known it to be absent; whilst in tubercular meningitis its disappearance for a few hours, or a day, or a few days, is by no means rare. A variable state of the knee jerk—e.g., one day present, next day absent, and a third increased—points to meningitis, not fever.

To make what may be considered a curious comparison, I should think that the differential diagnosis of meningitis from mere fevers might be assisted far more by the state of the knee jerk than by the swelling of the spleen; for unless the splenic enlargement be enormous, tubercle as well as typhoid fever and other diseases—e.g., pyæmia—will account for the splenic swelling; whereas absence of the knee jerk, or rather ascertained disappearance of the same, is practically never met with as the simple outcome of prolonged pyrexia.

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## A CASE OF HYDROPHOBIA IN A CHILD.

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L—, an English child, male, aged three years and a half, was knocked down by a stray dog on January 4th, 1886, and severely torn about the face by the animal's teeth and claws. The mouth was laid open through the lower lip by a perpendicular cut beginning at the left angle and extending an inch and a half downwards; and through the upper lip by an almost horizontal cut, about one inch in length, reaching from the right nostril towards the left side. The skin and areolar tissue of the right lower eyelid were torn from the muscle, leaving a narrow border of skin perhaps one-sixth of an inch wide below the ciliary margin. The portion thus torn formed nearly a semicircle of one inch radius, the centre corresponding to the middle point of the edge of the lower lid. It was split more or less horizontally by a laceration extending from the internal canthus about half way across the flap, and was rolled into a ball at the inner angle of the orbit, being retained by two slender points of attachment separated by the horizontal laceration, and corresponding to the anterior edge of the lacrymal bone. When unfolded, the flap was bruised and cold, and its external extremity severely crushed.

Under chloroform it was replaced, and the edges sutured and smeared with iodoform ointment. The other wounds were united and covered with collodion. On Jan. 23rd all the wounds had healed, but in consequence of sloughing of the external edge of the flap some slight eversion of the lower lid was threatened. Bleeding had been profuse from all the wounds at the time of the accident. Taking this and the condition and position of the injury to the lower lid into consideration, I did not cauterise the exposed surfaces. It was subsequently remembered that on the 26th and 27th (twenty-third and twenty-fourth days) the child made excuses not to drink milk or tea. He ate, however, porridge and milk, bread and soup, &c. On the 28th he ate a quantity of fruit, and seemed to suffer from indigestion. Some castor oil was administered with great difficulty, and he had a warm bath. When he was on the point of being put into the bath he sprang from his mother's arms in apparent fright, and climbed up the back of a high chair "like a monkey." He soon, however, came down, got into the tub himself, and wished to stay in the water. Next morning (29th), when coaxed to take some milk, he would only answer, "by and by," and when at last persuaded to make the attempt he pushed the cup from him. There was no spasm, no mucus in the fauces, and no aerophobia. During the day he repeatedly asked for milk &c., but refused everything as soon as it was brought, and was very restless and peevish. A mustard bath was administered at some friend's suggestion, and it did not frighten him. At 7 P.M. he was extremely nervous, and his legs were trembling. There was no intolerance of light (in fact he seemed pleased to look at the gas), and he paid no attention to the splashing of water close by him. At 10.30 P.M. he was delirious and saw spectres. The slightest touch on the head now produced spasm of respiration. At 11.15 P.M. the following note was made: "Frequent spasmodic arrest of breathing, immediately followed by forced inspiration in a series of short gasps. He starts up, momentarily stiff in all his limbs, but there is no clonic convulsions. His expression is maniacal, and he agitates his hands battling with spectres. This lasts for about forty-five seconds, when he becomes calm, recognises the people round him, and talks rationally, asking his father, for instance, to 'send the doctor away,' and replying, when a drink was offered him, that he did not want it. Between the grand attacks he has minor seizures, due apparently to spasm of the fauces; he retches violently, but brings nothing up." At 11.30 P.M., and again an hour afterwards, injections of one-tenth of a grain of morphia each time were administered, but with hardly perceptible effect, the pupils remaining dilated rather than contracted. On the 30th, from 1.30 to 5.30 A.M. he spent in spasm of the entire body, so violent as to jerk him out of his mother's arms and fling him two feet from her on to the bed on which she was sitting. At 4 A.M. he began to hawk up viscid mucus, which collected at the corner of his mouth; asking constantly for milk, but refusing it before it could be brought. At 5.30 A.M. one-tenth of a grain of morphia was injected. He did not during this period seem to lose consciousness under the attacks, and in the interval he was perfectly sensible, and his voice was unaltered. He passed urine three times between 1 and 5 A.M. standing up, and was not affected by the sound of falling water. The urine became milky on boiling; it was cleared by a drop of nitric acid. An attempt to relieve thirst by a warm water enema had to be abandoned, as it induced violent general spasm. Thinking it better to keep the room dark, the gas was lowered, but the change in the light brought on a spasm, and he begged that it should remain bright. At 6 A.M., the last dose of morphia showing no effect beyond causing moderate contraction of the pupils, the saliva becoming more and more abundant, the spasms more violent, frequent, and prolonged, and death seeming imminent, I again gave one-tenth of a grain. All the injections were given in the right buttock. There appeared to be complete insensibility of the skin in this region, as the child made no complaint of the needle prick. Immediately before giving this injection the following note was made: "Each spasm begins with a gulp, followed by the appearance of a little froth at the corners of the mouth. He then momentarily ceases to recognise the people round him, sees some terrifying sight, the lips become livid, he opens his mouth widely in prolonged effort to get air, and a quantity of viscid saliva is suddenly secreted which he hawks up. The end of the attack is marked by his speaking about some indifferent thing in a clear, strong, and natural voice. Conjunctivæ injected face pale, lips ashy."

The breathing now became deep and regular, and colour returned to the cheeks and lips. He seemed to sleep until 7 A.M., when he roused and asked for some toys. At 7.30 there was an extremely severe seizure, caused apparently by a sudden profuse secretion of mucus in the fauces. This collection, after a tremendous effort, he swallowed. He spoke of some water which he saw in a glass standing on the mantelpiece six or eight feet from him, but was not affected by looking at it. Another attack threatening at 7.35, I again gave one-tenth of a grain of morphia. He remained quiet, talking occasionally, and vomited some brown fluid. At 7.50 he inquired whether I had gone away, and then asked to be held so that he could see the gas. At 8 A.M., without loss of consciousness, there was a clonic convulsion of the left arm and of both hands. Both thumbs were flexed into the palms, but not firmly. Secretion in fauces more and more profuse, but no spitting. Breathing consisted of violent shallow inspirations, rapid expiration, and long pauses. Vomiting of brown fluid continued, which was now darker and contained altered blood. At 8.30 A.M. a grand attack was imminent. Morphia was again given, after which he dozed. No further violent spasms, but constant starting and continual vomiting. Pupils slightly contracted. At 10 A.M. corneæ muddy, and commencing ulceration of lower external quadrant on left side. Profuse muco-purulent discharge from conjunctivæ. Large quantities of grumous fluid vomited. No further secretion of mucus in the fauces occurred. He lay quietly in bed, disturbed from time to time by convulsion of the left side of the body and face until now, when in a violent and general convulsion he died.

I have detailed this case with what may seem tedious minuteness; but while it falls to the lot of but few practitioners to observe any considerable number of cases of hydrophobia, there are scarcely any opportunities for observing the disease in infancy. This fact may be my excuse. It is only in childhood that the course of the malady is uncomplicated by the mental condition arising out of knowledge of the inevitable termination close at hand; and although this condition is often, if not generally, betrayed by but few outward signs, it cannot fail to influence the psychical symptoms manifested.

Shanghai.

## Clinical Notes:

### MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

#### A CASE OF HÆMOPHILIA.

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THE publication by Dr. Skelton of his "Three Cases of Hæmophilia in the same Family" induces me to publish a clinical note of a case recently under my care in St. Mary's Hospital, where the patient was a member of a family in which ten members, males and females, of three successive generations were hæmophilic, and in which there was some departure from the ordinary rule of transmission.

A young man aged twenty-two, tall, anæmic, and thin, was admitted with an extensive swelling of the left thigh reaching from the knee to the groin, and from its physical characteristics evidently due to blood extravasated beneath the muscles. Seven weeks previously he had been laid up with so-called rheumatism in his left knee, which left it stiff; and five days before admission he had stumbled and fallen, and his leg was bent forcibly under him. It seemed to him as if "the flesh was being torn from the bone"; he suffered great pain, and the thigh rapidly swelled. We very early suspected he was a bleeder, and learned from him that he had had profuse hæmorrhage at one time from the extraction of a tooth, that he was subject to epistaxis, had bled furiously some two years ago from the opening of an abscess, and three years before had been laid up for many weeks with a swelling of the right knee, which, he said, was thought at first to be a sarcoma, but which in all probability was an intra-articular hæmorrhage. His high temperature, and the considerable tenderness with some redness at one point of the thigh, led us to fear that suppuration might

supervene; and as the necessity for making an incision was above all things to be avoided, the limb was placed at perfect rest on a Macintyre splint, after having been carefully bandaged from toes to groin. He was soon easier, the swelling at once began to diminish, and in seven weeks had entirely gone, some slight stiffness of the knee alone remaining when he was discharged at the end of two months.

His family history was very carefully worked out by my dresser and friend, Mr. Davis; and although it was impossible for him to see the various members of the family, he nevertheless elicited the following facts. Paternal grandparents healthy; maternal grandmother was in early life a bleeder, though in what precise way it was not known. She and her husband were not related to each other, nor were her own parents. She had eleven children, of whom the first, second, fourth, sixth, seventh, and eighth (all males) are dead—a startling mortality; but whether any were bleeders or not it was impossible to discover. As, however, the ninth, a living male, is a bleeder, it seems probable that some of his elder brothers may have been bleeders also. One of these brothers had died in infancy, and none are known to have died of hæmorrhage. The third, fifth, tenth, and eleventh (females) are alive, and all are bleeders. The third child, and eldest daughter, now aged sixty, is the patient's mother, and some of her children alone, of the third generation, are, so far, bleeders. Her family consists of four daughters and three sons. The three eldest are daughters, all bleeders, if a history of severe epistaxis and tooth-bleeding is sufficient to establish this fact. The fourth is the patient; then come a daughter and two sons, of whom none are bleeders. It is true that these three, the younger brother and sisters of the patient, may perchance not yet have had the opportunity of showing their diathesis, but it may be hoped that their immunity is an indication that the hæmophilia is tending to die out. What may have been the original cause of the hæmophilia in the first generation it is of course impossible to say; but this pedigree affords, at any rate, a good example of a morbid diathesis becoming rapidly developed to an extreme degree in the second generation—so much so that the children were affected certainly from the third down to the very youngest member (the eleventh) of the family; and possibly declining again, and it may be disappearing altogether, in the third generation, the three youngest grandchildren not being affected. Of the fourth generation, there are two, a male and a female, children of the patient's eldest sister, who are not bleeders. A noticeable feature, also, in this history is the fact that males and females seem to have been affected in an equal degree, contrary to the supposed usual rule that the males alone or most chiefly suffer, and that when the males inherit the disease it is through their mothers, who themselves remain unaffected.

#### SOME REMARKS ON A CASE OF SMALL-POX ARISING IN MID-OCEAN.

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THE following communication may be interesting in connexion with the leading article on "Small-pox in Australasia," which appeared in THE LANCET of Jan. 22nd of this year.

In April of last year, two days after leaving Aden, a case of variola arose amongst the passengers of the Orient Company's R.M.S. *Chimborazo*. The patient was an Italian (a steerage passenger, who embarked at Naples). Before the diagnosis of variola was certain I had the patient removed to one of the boats, which was partly covered in, and otherwise fitted up for his accommodation. One of the patient's compatriots volunteered to act as nurse, and he was also strictly confined to the boat. No one was allowed to visit the patient but myself, and the part of the deck beneath the boat was fenced off. The food of both patient and nurse was drawn up by the latter, and all scraps of food, dejecta, &c., were lowered down at night and at once thrown overboard. In addition to this, the ship was repeatedly fumigated with sulphur, steam, &c. The supply of lymph on board enabled me to vaccinate all the most urgent cases. As I was the only surgeon on board I had to move about amongst the passengers in the exercise of my duties; but I always kept a special suit of clothes, well sprinkled with carbolic solu-