Leaving now these three groups of cases, I conclude with a few desultory remarks upon clinical points which are of some practical importance. One of these is the occurrence of convulsive attacks in tuberculous meningitis. There were three types, all of which were exemplified in my series. The first and most usual is the supervention of convulsive seizures during the course of the illness. The second type is more perplexing and less frequent: the occurrence of convulsions as the first convincing sign of the fatal illness. In such cases there may be a series of attacks, a status epilepticus, bringing the child to the verge of death, followed by remarkable recovery for a while, and then the gradual development of all the classical signs of fatal tuberculous meningitis. The third and most confusing type is the occurrence of tuberculous meningitis in an epileptic. Recently I had a striking example of this occurrence in a little girl who had been treated, with gradual improvement, for many months for ordinary epileptic attacks. She was, however, brought up on one occasion earlier than usual for a sudden recrudescence of the "fits" and for this bromides were pushed. Dr. Crampton, who was watching this case for me, pointed out that the child had become drowsy and this at first we attributed to the bromide treatment. Fortunately, we discovered pyrexia, headache, and slight double ptosis which with vomiting made us suspicious, and she was admitted to the hospital. Ten days later she died from acute tuberculous meningitis. Two other cases occurred in the series and in all there has been the greatest danger of mistaking the fatal meningitis in its early stages for an exacerbation of the epilepsy, for doubtless there is an increased irritability of the brain in such circumstances.

I should like to emphasise, as has Sir William R. Gowers in his recent fascinating book "The Border of Epilepsy," the difficulty there may be in distinguishing syncopal attacks and minor epilepsy. There have been several cases in which this has been most puzzling. The most perplexing of all was the case of a child with congenital morbus cordis. The lesion was obvious enough and of sufficient severity to make it most reasonable to suspect that syncopal attacks might occur, and yet careful repeated inquiry and on one occasion observation made it almost certain that the particular attacks were epileptiform in character. There was a sudden complaint of pain in the chest and an instinctive run to her mother in alarm, then pallor and momentary loss of consciousness. The recovery was so rapid and the attacks at one time were so frequent that I believe them to have been epileptic, although more benefited by general tonics than bromides.

The treatment of epilepsy is a well-worn theme, but the value of bromides has been so differently appraised by various authorities that every independent opinion carries with it a certain usefulness. What has struck me has been the comfort with which epileptic children take these drugs. With very few exceptions I do not seem to have seen any deterioration of health from their use, and when I have thought there have been mental dulness and loss of appetite these cases have proved sometimes to be examples of eclampsia and not idiopathic epilepsy. Eruptions have been quite exceptional and in my experience most likely to occur in marasmic children suffering from epileptic attacks the result of gross organic brain disease—cases, for example, of cerebral diplegia or convulsions after meningitis; in these small doses have sometimes rapidly produced a rash. The severe fungating sores have not occurred at all.

It appears to me also that the bromides are at this early age distinctly curative, because—admitting that untreated epilepsy may also quiet down and disappear—there have been many instances of steady improvement directly following the commencement of a course of the drugs. I confess to great faith in them, not merely as dampers of the fire of the disease, but as aiding to counteract the mysterious tendency observed in many nervous affections to persistence of a symptom when once established. Yet with this belief I find myself in considerable difficulty as to the best plan to adopt in convulsions arising in infancy. I can but confirm what has been repeatedly pointed out in recent years, that when confronted with an infantile convulsion no one can with confidence affirm or deny that it may be the first event in an epilepsy. My notes show that in some cases the condition repeats itself from that moment; that in other cases, after a considerable lapse of time, sometimes years, epilepsy supervenes, while in other cases indistinguishable in character no

recurrence has been noticed. There can be no doubt that a great number of these last cases never reach hospitals at all and that the natural view of a hospital physician is an alarmist one. In spite of this, however, it must be admitted that there is no sure guide in prognosis. The attitude that I have adopted has been to weigh the evidence in each particular case. Have the convulsions, for example, had some very real excitant, such as foolish feeding or excitement during the troubles of dentition or rickets? Is there a doubtful family history? Have the convulsions commenced suspiciously late in childhood? In this way some judgment may be formed as to whether the condition may be looked upon as the result of an unfair strain on the delicate nervous organisation of the child, or, on the other hand, as evidence of an unusually susceptible nervous system. If the latter appeals to me I give a course of bromides, guided by the general behaviour of the case, and if the former I have been content to continue the treatment only until I feel sure the passing disturbance is thoroughly corrected. In all cases, however, I avoid the mere exhibition of the drug for the moment of anxiety and then its abrupt discontinuation. It need not be emphasised that the general remedies in vogue for infantile convulsions have also been used. I have no new points to make about the methods of exhibiting bromides in epilepsy. Each case requires individual attention. Free salt has been restricted but I will not vouch for strict obedience to that rule. Meat has been curtailed but not debarred. For sudden outbursts of epileptic fits no remedy seemed better than admission to the hospital. It is remarkable how the rest, altered surroundings, discipline, and regular diet influence many of these cases, which, if the parents are to be believed, are at home having repeated attacks day and night. I can only confirm what others have insisted upon, that constipation must always be avoided, and that it may greatly intensify the condition.

In conclusion, I have to express my thanks to Dr. Garrod and Dr. Voelcker for their permission to use the observations that were made on the cases which were under their care in the Children's Hospital, Great Ormond-street.

Clinical Notes :

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A CASE OF SCURVY RICKETS OCCURRING IN A BREAST-FED CHILD.

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THE rarity of scurvy rickets occurring in entirely breast-fed children would make it appear to be worth while recording the facts in the following case. Here the only two children in a family suffered from the affection, the one whilst being fed artificially and the other when at the breast. The mother is an intelligent woman and the histories as given by her can I think be entirely relied on.

About 18 months ago a female child, then aged 11 months, was brought to me at the Middlesex Hospital on account of swellings in both forearms and legs. She was the first child of the parents who were healthy people, aged 27 and 29 years respectively. There had been no miscarriages and there was no history pointing to syphilitic affections on either side. The parents were poor, but the mother stated that whilst she was pregnant she had had plenty of good food, but that she was not well during the whole period of pregnancy, suffering a great deal from sickness. The child was born at full term and until she was nearly nine months of age was fed entirely at the breast; then, as she did not appear to be thriving, she was, on the advice of a physician, weaned, and fed on cow's milk three parts (unboiled) and water one part (boiled). This did not seem to suit and for two months previously to being seen she had been having Benger's food and milk, all boiled. When seen the child was anæmic and listless; both hands were in the dropped position, reminding one

much of what is seen in the pseudo-paralysis of Parrot. Diffuse, tender, painful swellings existed on the bones of both forearms and on both tibiae; these were said to have been present for about a week and to have caused the child a great deal of suffering. Some of the other long bones were rather tender on manipulation but no swellings other than those mentioned were noticed. There were no teeth erupted. Scurvy rickets was diagnosed and the usual treatment for that affection adopted, with the result that immediate improvement occurred and in a comparatively short time all the swellings, pain, and tenderness disappeared and the child appeared to be quite well.

Sixteen months later the woman came again with a younger child, aged ten weeks. The mother was then looking ill, anemic, and apparently suffering from want of food. She stated that whilst she was pregnant with this child her husband had been out of work and they had been very badly off, with the result that she had been short of food. She had, however, had plenty of milk in the breasts and the child had had nothing whatever but this. When nine weeks old a swelling appeared about the upper end of the right tibia, which was tender and painful, and the leg became, in the mother's words, "quite paralysed." The child was sent to me as on its first visit to the hospital sarcoma of the tibia had been suspected. When seen the child seemed to be in fairly good condition and the only part affected was the upper end of the right tibia; here a doughy tender swelling of some size completely surrounded the bone and the child would make no effort to use the limb. Whilst in some doubt as to the diagnosis on account of the fact that the child had been entirely breast-fed, the mother reminded me of the case of her elder child who had been formerly under my care. The mother was directed to continue nursing the child but to give her as well a little orange juice twice a day, at the same time she herself was ordered a mixture containing iron and sulphate of magnesium. At this time too it must be mentioned that her circumstances had somewhat improved and that she was getting at any rate sufficient food. The result of this treatment was immediate and rapid as far as the child was concerned, the swelling on the tibia first became much less tender and in three weeks had almost completely disappeared.

The mother was closely examined as to the truth of the history of the feeding and she assured me that she had looked after the children entirely herself and had never left them to the care of others, so that the possibility of their having had food other than what she herself gave them was excluded. At my request she brought the older child to be seen. This child was then healthy and strong, showing no sign of her previous or any other affection, and the mother stated that she (the child) had not ailed in any way since she was under treatment 16 months previously.

Queen Anne-street, W.

A CASE OF RUPTURE OF THE LEFT AURICLE OF THE HEART.

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THE deceased was a Burman male convict, aged 24 years. In company with several other fellow convicts he was proceeding on transfer from a district jail distant from Mandalay a few hours by rail to the Mandalay central prison. According to the statements of the police escort and of his fellow prisoners he appeared to have been in his usual good health and to have made no complaint of indisposition whatsoever during the journey. From the Mandalay railway station the batch of convicts were marched a distance of about a mile to the central prison where they arrived at about 4 P.M., the afternoon not being unduly hot. While halting temporarily at the entrance of the prison it was observed that the deceased was in good spirits and was congratulating himself on his transfer to a jail in which he had previously served a term of two years; he had been released early in 1907. The formal handing over to the jail authorities was then commenced, for which purpose the outer gate was opened and the batch of prisoners marched into the lobby between the inner and outer gates. As deceased in his turn crossed the threshold he was seen to stumble and without uttering sound or cry to fall forward on to his face and to lie

motionless. The hospital assistant happened to be in the prison at the time and was on the spot in a few minutes, but life was extinct—the man had evidently died instantaneously.

The post-mortem examination was carried out 20 hours after death. The body was that of an adult Burman of good physique. There were no external marks of injury. On opening the chest the pericardium was at once seen to be much distended, displacing the lungs; on incising it the contents were found to be blood-clot. The anterior portion of the sac was carefully clipped away and the clot cleared out. There was no pericarditis. The heart was empty and appeared small and shrunken. On the anterior superior aspect of the left auricular appendix there was discovered a rent, of tri-radiate shape, through which the tip of the little finger could be readily passed into the cavity of the left auricle, the wall of which was slightly puckered in the neighbourhood, as if there had been a pre-existent bulging during life. The heart was removed and the left auricle slit open at a distance from the tear, but although no undue force was used to effect this the rent was extended, the surrounding tissues being very friable. To the inner aspect of the auricular wall around the rent some recent blood-clot was adherent, but on removing this it was found that the deeper layers were partly decolourised and of firmer texture, showing that deposition of fibrin had occurred some time previous to death about the spot which eventually gave way. The deepest layers of the clot were either intimately adherent to, or had entirely replaced, the endothelial coat of the auricular wall, for on gently removing the former the muscular tissue was revealed. The rest of the left auricle, the remaining chambers of the heart, and the valves were, so far as could be seen, normal; the orifices of the coronary arteries were fully patent; there was no atheromatous change visible in the roots of the great vessels; nor was there hypertrophy or dilatation of the heart itself except in the immediate vicinity of the rupture. No gummatous deposit was found in the myocardium nor was there naked-eye evidence of subjacent fatty change. With regard to the other organs, the liver and spleen were both slightly over weight (3 pounds 10 ounces and 9 ounces respectively) but did not present any obvious morbid change; otherwise nothing at all abnormal could be found. The brain was not examined.

Rupture of the heart is a rare condition: rupture of an auricle must be a very uncommon event. Sudden death, though not invariable, is the rule (71 out of 100 cases collected by Quain). According to Osler¹ either fatty infiltration or degeneration, acute softening following on embolism of a branch of the coronary artery, suppurative myocarditis, or gummatous growth is the usual predisposing, and exertion the immediate exciting, cause. Coates, however,² expresses a doubt as to whether fatty degeneration alone is competent to bring about a rupture of the heart. In the case described no cause for the rupture was demonstrated, though it is probable that a more detailed and fuller search might have discovered it.

Mandalay.

CASE OF RUPTURE OF THE BLADDER DURING LITHOLAPAXY; SUTURE; RECOVERY.

BY SOMERTON CLARK, F.R.C.S. EDIN.,
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A GIRL, aged two and a half years, nationality Jat, was admitted to hospital on Feb. 29th, 1908, for stone in the bladder. On March 2nd she was operated on; there was not much difficulty in crushing the stone. When 10 grains had been washed out and one or two grains remained in the bladder the bladder gave way. The abdomen was opened by a two and a half inch incision, such as is made in suprapubic cystotomy. The bladder was found to be ruptured to the extent of three-quarters of an inch on the posterior aspect; this was closed by a double row of catgut sutures; the bladder was filled with lotion and found not to leak. The abdomen was closed and two hours after the operation urine was passed naturally. The wound healed well for nine days. On the tenth day a stitch abscess was found at the lower end of the wound, and two days later another at the upper end; these caused the wound

¹ Principles and Practice of Medicine, second edition.

² Manual of Pathology, third edition.