A CASE OF FRACTURE-DISLOCATION OF THE ODONTOID PROCESS.

BY

H. C. WARDLEWORTH NUTTALL, F.R.C.S.,
HONORARY ASSISTANT SURGEON, LIVERPOOL ROYAL INFIRMARY.

THE increasing number of motor accidents, many occurring in country districts, creates a corresponding demand for a fuller knowledge of injuries, especially of bones and joints, from all practitioners.

Fractures or fracture-dislocations of the neck are more frequently seen nowadays, even allowing for more accurate diagnosis. On general grounds I fear they may be expected to occur more frequently in the future, and I submit the following record as an illustrative case.

On June 20th, 1928, the patient, a middle-aged woman, was sitting on the off side in the rear seat of a touring car. As the result of a collision at a cross-roads the car was turned over on to its near side, and the patient was thrown out, the left side of her head striking a wall which bordered the foot-path. Her husband, after extricating himself from the driving seat, found his wife lying in a "huddled-up" position. She did not lose consciousness, and complained immediately of pain in her neck. With the help of two other men she was carried into a neighbouring cottage, her husband lifting her head and shoulders. He says that her coat was rucked up about the neck, and thinks that it prevented any further displacement of the head.

Dr. L. Hutchinson of Huyton, who attended almost at once, diagnosed a fracture of the neck, fixed it temporarily, and sent her to the Royal Infirmary by ambulance.

On admission she was suffering from shock. There was a scalp wound in the left fronto-parietal region, but no signs of fracture of the skull. She complained of pain in the neck, and on examina-

tion marked prominence of the upper cervical vertebrae could be felt, with a depression above them. The head and neck were held rigidly on the trunk, and the neck appeared unusually short, probably the effect of the contracted muscles. Signs of injury to the spinal cord or cervical nerves were absent.

A temporary splint was applied; she was radiographed and treated for shock. The radiogram (Fig. 1) showed fracture of the odontoid process, with considerable displacement forwards of the atlas and odontoid fragment.

The next day the arm and leg reflexes were increased, and she had some retention of urine, otherwise there was nothing to report. The following day the reflexes were normal, and I reduced the dislocation under anaesthesia. Two assistants maintained steady traction on the head and neck by means of two traction loops, one beneath the chin and one behind and beneath the external occipital protuberance, crossing one another at the vertex of the skull. I then grasped the neck firmly from the front with my fingers on the vertebrae posteriorly and my thumbs and thenar eminences along either side of the mandible. With a steady pressure of the vertebrae forwards and a tilting of the head backwards I reduced the dislocation with a slight but quite definite click. While the extension was maintained a plaster-of-Paris bandage was applied to immobilize the head and neck. Except for a mild cystitis and a little respiratory discomfort on one occasion, due to the bandage, her convalescence was tranquil, and she was discharged from the hospital on June 30th under the care of Dr. Halton.

The plaster-of-Paris was removed on August 3rd, and a

wire collar support fitted. A radiogram taken the next day is shown in Fig. 2; it reveals slight over-reduction if anything, but this may be due partly to the position of extension of the cervical vertebrae in this radiogram as compared with the first.

Since September 1st the collar has been left off gradually, and the range of movement has steadily increased. At the present time (September 22nd) nodding movements are free, but twisting of the head from side to side is limited to 50 per cent. of the full range.

I am indebted to Dr. R. E. Roberts for the first radiogram, and to Dr. J. H. Mather for the second.

FIG. 1.

FIG. 2.

TREATMENT OF NON-SPECIFIC DIARRHOEA IN THE TROPICS.

BY

C. V. THORNTON, M.B., Ch.B.,
BOMBAY.

THE common occurrence of diarrhoea in children and adults in the tropics without any traceable cause is one of the many thorns in the flesh of the general practitioner. Very often his reputation will be made or marred by his success or failure to treat what is to the public a simple disease, but which in reality is a most complex condition.

In consequence of the innate conservatism of the profession the same old mixtures are copied religiously from textbook to textbook. Every mail brings pamphlets of new and futile proprietary drugs, drugs which are only equalled in their general inefficacy by their numbers. The four main types of tropical diarrhoeas are: (1) the dysenteries; (2) sprue; (3) tuberculous or syphilitic; (4) diarrhoea not caused by any of the above.

The patient's history will generally serve to allocate the diarrhoea to one of these groups. Thus, in the case of dysentery there will be a history of pain and tenesmus. Fever is a common accompaniment, and, of course, blood and mucus will be present in the stools. Here let me strike

a note of warning: never be satisfied with the patient's assertion that he has looked for these two phenomena—make sure for yourself.

Sprue is generally easy to diagnose. The patient seldom comes in the very early stages of the disease, and by the time the doctor sees him there are the typical signs of emaciation, putty-coloured stools, and most probably the tell-tale sores in the mouth. Moreover, if you inquire closely, you will elicit a story of long-continued "indigestion" and flatulence.

Tuberculous and syphilitic diarrhoea are more difficult to diagnose. The former frequently shows signs elsewhere, or there is a history of an old pleurisy or some other lung complaint. The physical findings in the abdomen often help. As regards syphilis, if the possibility of this disease in all obscure cases of diarrhoea is borne in mind, and a careful history taken together with a blood examination, a mistake ought not to be made.

It is the fourth group that we are specially concerned with, and here the history of the case is nearly always the same. There is no pain, no change in the colour of the stools, which are liquid but otherwise normal in appearance. The striking fact is that ingestion of food causes an immediate evacuation; or, as the patients express it, "the food runs through them." Examination of the stools reveals nothing of note. The presence of undigested food,

and possibly an increase in the number of streptococci, will be the pathologist's report, from which the doctor may gather what comfort he may.

The duration has generally been about a week, this being the period adopted by most patients as being suitable for playing with advertised cures and sampling such old mixtures as their friends have been able to rake up from their medicine cupboards.

The recent work of Scott and others tends to show that true sprue is a deficiency disease in that the calcium content of the blood is below the normal, and also that some substance produced by the liver and as yet unidentified is diminished in quantity. This substance, which is probably of the nature of a hormone, is apparently responsible for the proper functioning of the intestines, and regulates the output of their digestive juices, and also the rhythm of their muscular contractions. Any interference with the production of this hormone results in the immediate non-digestion of food and the undue hurrying through of the bowel contents. Whether or not this is the case is only surmise, but all the latest work on the subject goes to prove the truth of this theory.

The treatment, then, of these cases of diarrhoea would appear simple, and so it is. First and foremost, purgatives have no place in the schedule at all. The patient must be put to bed for at least three days, preferably longer. All solid food must be stopped and only citrated milk or milk that has been peptonized given. Further, the milk must not be given in a large quantity at any one feed. A cupful of it should be administered every two hours. Barley-water is allowed without restriction.

The mainstay, however, of the treatment is extract of liver, and this can conveniently be given as soup or in the powder form. In case this latter cannot be procured a short recipe for making the soup may not be out of place:

Take half a sheep's liver and mince it finely. Add four breakfastcupfuls of cold water and such spices as the patient may like. Boil down to two cupfuls, strain, allowing small particles of liver substance to come through, and give one cup in the morning and one in the evening.

In furtherance of the calcium deficiency theory, 15 grains of calcium lactate may be given thrice daily. The success of this treatment in these cases of non-specific diarrhoea is most striking, and any case which does not respond favourably in a few days should be regarded from a serious standpoint.

I have not mentioned two other common causes of acute diarrhoea in the tropics—namely, cholera and food poisoning. These are too obvious in their symptoms to allow of any such protracted treatment, and do not therefore come within the scope of this article.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

A FOREIGN BODY OF UNUSUAL CHARACTER IN THE LUNG.

THE following case seems of sufficient interest to warrant publication.

On June 11th, 1928, a little girl, aged 8 years, was brought to Dr. Loughlin of Woolston because for the past few weeks she had been making a peculiar "rattling noise" in her chest. He found that she was in good general health, that there were no symptoms beyond a low-pitched expiratory stridor, and no signs beyond rhonchi at the left base of the lung. He suspected a foreign body in the lung, but the child's mother could give no history pointing towards this. He treated the child as suffering from bronchitis.

On June 15th the child was seen again and seemed in good health, with the stridor somewhat diminished. Again the question of foreign body was raised, and this time the child's grandmother gave the following history. "Seven weeks ago the child was playing with some beads and had one in her mouth when she sat down to her dinner. She choked over the first mouthful of food, and when asked what was wrong said: 'Oh, it is all right, the bead has gone.'" (The beads are about half an inch in diameter and belong to a game called "Gloria mosaic.")

In view of this history Dr. Loughlin sent the child to the Royal South Hants Hospital, where she was referred to me, and I saw her on June 18th. There was then no stridor, she looked well, but she complained of pain in the left side of the chest, and her temperature was 100° F.

She was sent to the x-ray department, but neither by screen nor on a plate could a foreign body be seen. The plate showed

dullness at the left base. As a bead identical with the one alleged to have been inspired was sent with the child, we had this strapped to her chest wall, and it showed up perfectly on screening. The radiographer was now convinced that there was no bead in the lung, and the mother tried to help us by saying that the child had coughed it up. I was mystified and sent the child to the medical ward under Dr. Fisher for observation.

During the next week the child looked ill; her temperature fluctuated, rising to 102°; she suffered from cough and asthmatoïd attacks, and the left lung exhibited varying physical signs. No diagnosis could be made except that of foreign body in the lung, but we were puzzled by the x-ray findings. She was x-rayed again, when a plate typical of an obstructed lung was obtained. The left lung was entirely dark and the mediastinum was drawn towards the same side. There was still no sign of the cause of the trouble.

Next day bronchoscopy was performed. On reaching the bifurcation of the trachea nothing could be seen because of the quantity of mucus present. On aspirating, some mucus came away and then the tube became blocked. On removing it slightly it cleared and more mucus came, but again the tube was blocked. As the child looked rather blue I removed the bronchoscope, with the aspirating tube inside, bringing with it a putty-like mass. I passed the bronchoscope again, but could see nothing as the trachea was full of mucus. The child was sent back to bed. She was very much better the next day, and within a week was sent home perfectly well.

I had one of the beads examined, and found that it was simply a mass of dried clay which, when soaked in water, became soft and putty-like and did not show a shadow to x rays.

This case is not published as a successful bronchoscopic effort, as I never saw the foreign body until it appeared in the child's mouth. Its interest lies in the difficulty in obtaining a history and in the peculiar character of the foreign body, which was opaque to x rays until it was inspired into the lung, and then it became non-opaque.

One wonders how many cases such as this remain undiagnosed, because had it not been for Dr. Loughlin's shrewd suspicion and pertinacity this case would almost certainly not have come in for treatment.

Southampton.

W. STEWART.

HAEMOPHILIA IN THE TROPICS.

DR. HUGH THURSFIELD, in the *Text Book of the Practice of Medicine*, edited by F. W. Price, states that haemophilia is a disease of the temperate zone, nearly all the reported cases being of English, American, or German origin. The occurrence of haemophilia in the southern Punjab is therefore, I think, of some interest, and the following clinical details may be worth recording.

In 1923, when I was a student, I saw two brothers who suffered from this disease, and on inquiry it was found that all the maternal uncles of the children had died of bleeding in their childhood. The mother of the children had no sister, and no further information regarding bleeders in the family could be traced. The cases were not seen again or heard of.

In April, 1927, a child, aged about 3 years, was brought from a distance of about eleven miles, bleeding from a contused wound in the head. The father of the child showed great anxiety about the wound, which was not at all large, and I immediately dressed the wound, from which an aseptic discharge was oozing. On inquiry it was found that the wound was about four days old. An elder brother of the child had died from uncontrolled bleeding, hence the anxiety of the father. The child's mother had one sister who had no issue, and her brothers had died from bleeding.

Since blood oozed later from the dressing, I opened the wound and redressed it with a piece of lint soaked in normal horse serum. On removing the dressings after twenty-four hours a large clot was found in the wound, but no oozing. The wound was dressed again with normal horse serum, and subsequently ordinary aseptic dressings were applied daily to the wound, which healed without further bleeding. During the treatment of the wound I gave hypodermic injections of normal horse serum, beginning with 1 c.cm. and increasing the dose by 1 c.cm. each time; I gave six injections at intervals of six days. While the injections were being given the child became weak and anaemic.

Six months after the course of injections the child was again strong and healthy, but some peculiar abscesses were said to have developed; these were not seen by any medical man, but it was stated that about a dozen small hard tumours appeared successively deep on the side of the neck, came to the surface, burst with a whitish discharge, and healed without treatment.

I saw the child again in June, 1928. There was no mark left by the abscesses or cysts. The child was quite healthy, and though it had been scratched badly by a monkey, the bleeding stopped as in a non-haemophilic child.

The disease is rare, and I cannot gather many instances, but I think the child did benefit by a course of injections with normal horse serum.

Kurali, Ambala.

BHAGWAN RATTAN, M.B., B.S.