

comment on the card of one child aged 7: "Fracture reduced under pethilorfan. Considerable force used during reduction with absolutely no pain; the child did not even wince."

The failures comprised one dislocation of the elbow, one fractured femur in a young and muscular man, and one case of "locked knee"; two of these were later reduced satisfactorily under a general anaesthetic.

No side-effects or complications were observed in any of the cases described above.

This technique has revolutionized our work in the casualty department. The need for an anaesthetist is much less frequent, fractures and dislocations can be reduced immediately even if the patient has recently had a meal, and patients can usually go home immediately the post-reduction x-ray film has been taken.

I wish to thank Mr. G. K. Rose, Consultant Orthopaedic Surgeon.

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Diabetes Insipidus After Tuberculous Meningitis

Lorber (1958) has drawn attention to the apparent rarity of diabetes insipidus as a sequel to successfully treated tuberculous meningitis. He quoted 11 examples from the literature, and added one case of his own. Acheson and Smith (1958) refer to two cases, so that in the English literature there are only three recorded cases.

The object of this short communication is to publish another case and refer to the difficulties in management.

CASE HISTORY

A Maori child of 3 years was admitted to the Dunedin Hospital on February 25, 1956, with a two-weeks history of cough, fever, and anorexia, followed by the development of drowsiness and irritability. Three months previously the boy had been treated elsewhere for primary pulmonary tuberculosis producing collapse of the right upper lobe. No antituberculous drugs were given. The child's mother had had pulmonary tuberculosis, and a sibling had died of tuberculosis.

On examination he was drowsy and showed obvious signs of meningeal irritation. There were scattered rhonchi over the right lung.

Lumbar puncture revealed a faintly turbid fluid under pressure of 200 mm. of C.S.F.; there were 480 leucocytes/c.mm. (lymphocytes 70%, polymorphs 16%, mononuclears 14%), the protein was 160 mg./100 ml., and sugar 38 mg./100 ml. No tubercle bacilli were seen, and subsequent culture and guinea-pig inoculation were negative. Chest x-ray examination showed consolidation in the right upper lobe with mediastinal glandular enlargement.

The child was treated with intrathecal streptomycin, 50 mg. daily for 14 days, and on alternate days for 14 days; intramuscular streptomycin, 1 g. daily for six months; and isoniazid, 50 mg. b.d. for six months. His clinical progress was satisfactory, and when after four months he was transferred to a convalescent home he showed no abnormal physical signs.

On August 7 a further lumbar puncture showed 177 erythrocytes, 17 leucocytes (43% lymphocytes, 57% polymorphs), protein 120 mg./100 ml., sugar 60 mg., and no growth.

In October, eight months after the onset of his meningitis, symptoms of diabetes insipidus first developed.

He began to drink excessively and pass large amounts of dilute urine, slept more than usual, and became suspicious in temperament. He was readmitted to hospital, and fluid-balance studies showed that his intake was up to 3.5 litres of fluid a day, and his output usually towards 3 litres. Examination of the urine showed nothing abnormal except for a specific gravity constantly about 1002. He was not obese or unduly somnolent at this stage, and in all other respects he was entirely well. A skull x-ray film was normal.

At first he showed a dramatic response to vasopressin ("pitressin") tannate injections, a dosage of 0.25 ml. intramuscularly reducing his intake and output to about 1 litre for two to three days, with a corresponding rise in specific gravity. However, he soon became tolerant of this dosage, and was eventually stabilized on 0.5 ml. twice weekly, but never was there smooth control or a constant response to an injection.

In December he was seen at the Christchurch Hospital, and on a dosage of vasopressin tannate, 1 ml. twice weekly, his urine output ranged from 1,500 to 400 ml., with specific gravities from 1001 to 1026.

In July, 1958, he was readmitted because his injections were painful and not adequately controlling his thirst. His vasopressin was stopped for 14 days, during which his fluid intake ranged from 1,800 to 3,350 ml., and the specific gravity of his urine was uniformly low. With recommencement of vasopressin injections and later vasopressin snuff, there was an immediate fall in his fluid intake. At first two snuff capsules a day controlled his symptoms, but this later had to be increased to four capsules a day. This led to the complication of infection in the nose, which responded to local antibacterial treatment. The child was able to return to school, and though control was never ideal, his mother considered that the snuff achieved a better result than the injections.

COMMENT

The clinical diagnosis of diabetes insipidus and the tuberculous aetiology in this patient are beyond question. A response to vasopressin therapy has been achieved, but management in a child of 5 years (the youngest on record) has proved a difficult problem. Injections of vasopressin gave a prompt effect, but its duration was unpredictable and the injections were often painful. The use of vasopressin snuff has resulted in fair control, but at the cost of high dosage and nasal infection. Three of the recorded cases have apparently recovered within two and a half years of the onset of diabetes, so that an optimistic prognosis may yet be justified.

I thank Dr. Murray McGeorge for permission to publish this case, and Miss Margaret Watson for her secretarial assistance.

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REFERENCES

- Acheson, R. M., and Smith, Honor V. (1958). *Quart. J. Med.*, 27, 83.
Lorber, J. (1958). *Arch. Dis. Childh.*, 33, 315.

Now that the processing of paprika is carried out by machinery, toxomycosis, a disease similar to pulmonary tuberculosis, has disappeared from Szeged, the famous paprika centre in southern Hungary. Known locally as the "Szeged illness," it was caused by the inhalation of spores of certain paprika moulds and hot pepper dust during the splitting of ripe paprika, which used to be done by women and girls on the Szeged paprika farms. (Hungarian News Service.)