of a unilateral dilatation of the pupil can always be relied upon to distinguish between the two lesions. The findings on lumbar puncture may be more helpful. Few red cells should be present in the cerebrospinal fluid in acute subdural haematoma without brain laceration, in contrast to the grossly bloody fluid found by Aring and Merritt (1935) in over 70% of cases of cerebral haemorrhage. The special methods of investigation are disappointing once puncture of the subdural space becomes impossible owing to fusion of the cranial sutures. Storch and Munro (1938) found encephalography of little use in all but large chronic subdural haematomata. Angiography is capable of yielding valuable information, but is technically difficult in a gravely ill child and is likely to lead to dangerous delay in operating.

The practical importance of this problem is brought out by Sheldon's (1927) analysis of 10,150 consecutive post-mortem examinations at the Hospital for Sick Children, Great Ormond Street. He found 50 cases of intracranial haemorrhage in children under 12 years of age; of these, only eight were attributed to trauma. The number of cases in the first year of life was much greater than in subsequent years even if those due to labour are excluded. He found that, in contrast to the commonness of intracerebral haemorrhages in adults, in his series the majority of haemorrhages occurred outside the brain substance. This difference in site is doubtless to be attributed to the rarity of vascular degenerations in childhood. Of the 50 cases of haemorrhage 1 was extradural, 11 were subdural, 16 were subarachnoid, 16 were cerebral, 4 were cerebellar, and 2 were in the brain stem. Eight of the intracerebral haemorrhages resulted from embolism during the course of malignant endocarditis and one was associated with chronic nephritis.

These figures, if representative, suggest that if these diseases can be excluded an intracranial haemorrhage in a child is twice as likely to be outside the brain as in its substance. This fact, when coupled with the difficulties of clinical diagnosis, leads us to believe that if a child has an acute progressive intracranial lesion and the C.S.F. is clear, there is no alternative to exploration of the subdural space on one or both sides, even if this policy results in a certain number of unnecessary operations.

Summary

A case of acute subdural haematoma occurring in infancy is described.

Difficulties in diagnosis are discussed.

It is shown that a child with symptoms and signs of a progressive intracranial lesion and with a clear C.S.F. should be regarded as an immediate surgical problem, even in the absence of a history of trauma.

We are grateful to Dr. E. Mackworth for permission to publish the case.

REFERENCES

- Aring, C. D., and Merritt, H. H. (1935). *Arch. intern. Med.*, **56**, 435.
 Ingraham, F. D., and Matson, D. D. (1944). *J. Pediat.*, **24**, 1.
 Sheldon, W. P. H. (1927). *Quart. J. Med.*, **20**, 353.
 Storch, T. J. C. von, and Munro, D. (1938). *New Engl. J. Med.*, **218**, 6.

The need for varied and interesting play material for very young children is stressed in a new booklet—*Play with a Purpose*—published by H.M.S.O. for the Ministry of Health (price 1s.). It has been written mainly to help and advise those in charge of groups of young children in nurseries, and shows the value of simple play material in helping the all-round development of the child. Pictures of the type of toys most suitable to the child at various stages of his development are accompanied by many useful hints.

A CASE OF HYPERSENSITIVITY TO PETHIDINE IN A WOMAN IN LABOUR

BY

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Pethidine was first introduced as a spasmolytic and analgesic drug by Eisleb and Schaumann (1939). Since then the pharmacology and clinical possibilities of the drug have been fully investigated. Among its other uses pethidine has been found to be of great value as an analgesic in labour. This was first described by Benthin (1940); since then other workers have confirmed the importance of pethidine in this field, so that now it is probably the most widely used analgesic in labour, and can be given by midwives on their own responsibility.

The comparatively mild toxic effects of pethidine are always given favourable emphasis in accounts of the use of this drug. In animals, however, with the use of larger doses per kilogram than in man, pethidine causes hypotension, respiratory depression, and bradypnoea. In very large doses apnoea may occur (Gruber, Hart, and Gruber, 1941). In man a marked transitory fall of blood pressure also occurs, within three to four minutes, when the drug is given intravenously, and a moderate fall, maximum in 40 minutes, when given by intramuscular injection. This was reported by Branwood (1943), but in his series no alarming symptoms were noticed.

Cases have been described in which pethidine has caused a more severe reaction—e.g., apnoea, severe hypotension, or collapse—but these have occurred after giving it by intravenous injection. Therefore it seems of interest to record the following case of hypersensitivity to pethidine in a woman in labour, in which the drug was given by intramuscular injection.

Case History

A married woman aged 24 was admitted in labour at full term on January 2, 1951. She had felt well throughout her pregnancy, which had been quite normal. Labour began at 1.30 a.m. on January 2, and the patient was admitted to hospital at 6.30 a.m. On admission the clinical findings were as follows: B.P. 120/80; urine, N.A.D.; height of fundus, 40 weeks; presentation, vertex L.O.A.; head engaged; foetal heart heard; pains 1 in 10. On rectal examination the cervix was 3 cm. dilated. Pethidine, 100 mg., was given by intramuscular injection at once.

Labour progressed normally, and the cervix was fully dilated at 8.50 a.m. The patient was then encouraged to bear down with the pains. At 9.40 a.m. she suddenly became cyanosed and developed a transient urticarial rash on face, abdomen, thighs, and legs in quick succession. The rash had disappeared from the face by the time it appeared on the legs. She complained of feeling faint. The pulse was imperceptible, and the blood pressure could not be recorded. Until this time the foetal heart had been heard, but five minutes after this attack began she delivered normally a fresh stillborn male infant. The placenta and membranes followed 20 minutes later.

After delivery the blood pressure still could not be recorded, and the urticarial rash appeared again on the face, with some oedema of the lips and eyelids. This gradually disappeared, and by 10 a.m. a weak pulse could

be felt, and the blood pressure was 70/? . Her condition continued to improve, and by midday the blood pressure was 120/80 and her condition satisfactory.

The child was a boy weighing 7 lb. 4 oz. (3.29 kg.). At necropsy no abnormality was found except some congestion of the liver.

A careful history was taken. The patient had never had any similar attack before. On the previous day she had eaten her normal diet and taken nothing unusual. She did not find that any food "disagreed" with her. During labour she had nothing to eat, and drank only tea and water. With the exception of pethidine, only gas-and-air analgesia was used.

It was therefore felt that the reaction was probably due to pethidine, and the following test was carried out with the patient resting in bed. The blood pressure was taken and 50 mg. of pethidine was given by intramuscular injection. Blood pressure readings were taken every half-hour for six hours.

Time	B.P.	Remarks
10.15	120/75	
50 mg. pethidine given I.M.		
10.45	120/80	
11.45	110/75	
12.15	110/70	
12.45	110/70	
1.45	110/80	
2.25	90/60	Marked puffiness of face. "Drawing" feeling in skin
2.40	90/65	No puffiness of face
3.10	105/70	
4.00	100/65	

In the test the maximum fall in blood pressure of 20 mm. Hg systolic and 15 mm. Hg diastolic occurred four hours after the injection of pethidine. During labour, collapse occurred 3½ hours after the pethidine injection.

It seems reasonable to conclude from the results of this test that the reaction during labour was caused by pethidine. The case also demonstrates that, even with normal dosage of a commonly used and usually safe drug, unexpected and serious reactions may occur, endangering the lives of both mother and child.

I would like to thank Dr. Jeffery Jones, medical superintendent, for permission to publish this case, and Dr. J. Graham, lecturer in pharmacology, Welsh National School of Medicine, for his assistance and advice.

REFERENCES

- Benthin, W. (1940). *Dtsch. med. Wschr.*, **66**, 760.
 Branwood, A. W. (1943). *Edinb. med. J.*, **50**, 177.
 Eisleb, O., and Schaumann, O. (1939). *Dtsch. med. Wschr.*, **65**, 967.
 Gruber, C. M., Hart, E. R., and Gruber, C. M., jun. (1941). *J. Pharmacol.*, **73**, 319.

According to the latest annual report of the Medical Defence Union, membership of the Union on July 17, 1951, stood at 35,700 practitioners. It is noted that the Medical Act, 1950, which is now law, has introduced changes in the mode of conduct of disciplinary cases before the G.M.C., and it has been decided to open membership of the Union to the newly qualified during the intern year they must do before they are permitted on the *Medical Register*. During the year 1950, 2,135 cases were conducted, among them one where a member with an emergency commission in the R.A.M.C. was posted as commanding officer of a hospital and gynaecological specialist, but was not promoted to temporary major, the rank held by his predecessor. The War Office at first refused to grant him higher status and pay, but the solicitors to the Union were able to show that the military authorities had wrongly interpreted their own regulations, and he secured his promotion.

HERPES ZOSTER WITH INVOLVEMENT OF ANTERIOR HORN CELLS

BY

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The following case may be of interest, as motor disturbances are rarely seen in herpes zoster.

Case Report

A man aged 40 was admitted to hospital on May 8, 1950. He complained of an irritating rash on his inguinal region and buttocks of the left side. He gave a history of having been in hospital a week previously for a lacerated face, for which he received prophylactic injections of penicillin. While in hospital he felt an irritation in the skin of the left buttock and extending round to the inguinal region and lower abdomen in front. Shortly after discharge he noticed a rash on those areas. He had never been in contact with chicken-pox so far as he knew.

Examination showed that he was a middle-aged man of rather nervous temperament. His temperature was 100.2° F. (37.9° C.), pulse 90, respirations 20. He had a typical herpes zoster involving the left buttock behind, the left inguinal region in front, and also the suprapubic region, the segments affected being the first to third lumbar. It is perhaps noteworthy that the herpetic vesicles passed slightly beyond the midline of the lower abdomen for a distance of ½-1 in. (1.25-2.5 cm.).

The vesicles were painted with collodion and he was given 1 ml. of pitressin daily for three days. The vesicles dried up satisfactorily, but on May 15 he complained of pain on the medial side of the left thigh in its upper third, and there appeared to be some loss of power in the left leg. The next day the knee-jerk and ankle-jerk were absent, as also was the plantar reflex. He complained of considerable pain in the whole of the quadriceps and medial side of the thigh on movement. There was also ½ in. (1.25 cm.) of muscular wasting. There was no fibrillary tremor.

Lumbar puncture showed no increase of pressure, and clear fluid was obtained. On examination this was found to contain 62 cells per c.mm., of which 56 were lymphocytes and 6 polymorph leucocytes. There was a slight increase of globulin by Pandy's test.

The haemoglobin and red-cell counts were normal, and the white-cell count was 9,700 (neutrophils 68%, lymphocytes 28%, monocytes 3%, eosinophils 1%).

On May 18 the patient had more marked paresis of the left leg, with absent reflexes and pain on attempted movement. By May 25 he was completely paralysed in the left leg, with loss of all tendon reflexes and 1 in. (2.5 cm.) of muscular wasting. He had severe pain on passive movement. He was anaesthetic in the areas where the herpetic vesicles had been present—that is, in the area supplied by the first to third lumbar segments.

By June 2 movements in the affected limb were slowly beginning to return, and by June 18 he could move the limb a little and the ankle-jerk had returned, the plantar reflex was flexor, but the knee-jerk was still absent. There was, however, still pain on movement.

This was thought to be a case of virus infection of the anterior horn cells of the first to third lumbar segments, which had spread over from the posterior horn cells or the posterior root ganglia, where it had caused a typical herpes zoster.

The similarity to acute anterior poliomyelitis was, however, striking, and the results of lumbar puncture rather supported this diagnosis; on the other hand, the paralysis was not maximal in onset, but came on very slowly. In addition, there was no neck or spinal rigidity, and this district has been free from poliomyelitis for a considerable time.