sedimentation rate (Westergren-Biernacki) was never above 8 mm. an hour. The Wassermann reaction of the serum was negative. Guinea-pigs inoculated with the serous fluid from the soles and palms developed the typical signs and symptoms of f.a.m.d. after 12 to 14 days.

The Veterinary Office at my request undertook a search for cases of f.a.m.d. in the patient's district, and were successful in locating several cases among cattle. The diagnosis of the disease in man was therefore instrumental in bringing to light unsuspected cases in animals in the same locality.

Case II

A Polish soldier, aged 31 and of previous good health, reported sick on account of vesicles on his hands which made work impossible. He gave a history of general weakness of 14 days' duration. Twelve days previously he had been troubled by vesicles in the mouth and on the inner surface of his lips, which he attributed to burns from hot food. Vesicles had been present on his hands for seven days before reporting. Large quantities of unboiled milk formed part of his normal diet. Examination revealed ulcerated areas on the tongue and inner surface of cheeks and lips. Vesicles with crusts were present round his mouth; while the palms, fingers, and soles showed areas of vesiculation. His temperature was 98.6° F. A diagnosis of f.a.m.d. was made on these findings, and the patient was sent to hospital in Glasgow owing to the proximity of pasturage to the camp.

Commentary

These two cases may serve to show the occurrence of f.a.m.d. in man. Infection may be external, as evidenced by the first case and by the work of experimenters, or via the digestive system as in Case II and in the French researches. The incubation period is apparently about 14 days.

Characteristic findings are the headache and general weakness, and pain in the extremities. About the third day excessive salivation and superficial ulceration of the oral mucous membrane and vesiculation of the skin around the mouth ensue. Later the vesicles appear on the palms and soles and around the nails, being preceded by cherry-coloured erythema. The vesicles contain a turbid serous fluid. All the skin and mucous membrane lesions heal without cicatrization. The temperature is high at first and falls after the appearance of the vesicles, returning to normal by the second week. In a few cases the temperature remains normal throughout. No changes are apparent in any of the internal organs, in the blood, or in the sedimentation rate (an important point in the differential diagnosis of acute leukaemia and agranulocytosis). The disease appears to run a more moderate course in man than in animals.

Differential diagnosis must include aphthous stomatitis, acute leukaemia, agranulocytosis, scurvy, and drug rashes. The distribution of the lesions, blood examination, and guinea-pig inoculation will aid diagnosis. Treatment is purely symptomatic.

Taking into account the appearance of two such cases in my own experience in so short a time, I am in some doubt as to whether f.a.m.d. is as rare in man as I had hitherto believed. Owing to the comparative mildness of the constitutional upset many cases may never come to the notice of the medical man, and not a few cases may be wrongly diagnosed.

Conclusions

The sanitary authorities would be well repaid if more attention were given to the prevention of the spread of f.a.m.d. by man.

There should be co-operation between the doctor and the veterinary worker to prevent human sufferers with f.a.m.d. from having contact with animals.

PREGNANCY AND LABOUR IN A CASE OF CONGENITAL COARCTATION OF THE AORTA

BY

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Congenital coarctation of the aorta, being a somewhat rare abnormality and moreover affecting males more often than females, in the proportion of 3 to 1, is seldom seen as an obstetrical complication. Jensen (1938), reviewing the literature, found references to child-bearing in 7 cases of coarctation, the most important account being that of Strayhorn (1936), whose patient showed signs of commencing cardiac decompensation during pregnancy, but was rested and successfully delivered by Caesarean section. Of these 7 patients, two died during pregnancy—one from cerebral haemorrhage, the other from rupture of the aorta into the pericardium; a third died from congestive heart failure 14 days after pregnancy had been terminated. In addition to the foregoing, Bramwell and Longson (1938) give details of a case in which there was dyspnoea and palpitation on exertion from the fourth month onwards; this patient was successfully delivered by Caesarean section, and made an excellent recovery.

Case History

Mrs. A., a farmer's wife, had suffered from tiredness and sudden fainting fits from the age of 8, could not indulge in games, and had to leave school early. She was diagnosed at the age of 20 as a case of congenital coarctation. At this time she was incapable of exertion, and had had her activity greatly restricted for several years; but she became stronger, married, and in the autumn of 1941 became pregnant for the first time, being then 31 years old.

On Nov. 5, when I first saw the patient, she was in the second month of pregnancy and looked well. On examination scoliosis was seen to be pronounced: the heart showed displacement and enlargement to the left, the apex beat being at a level with the lower border of the manubrium sterni and axillary in position, being 6 in. from the midline. A harsh systolic murmur was heard in the second and third intercostal spaces to the left of the sternum, and extending towards the apex: the second sound in this area was sharp and reduplicated. At the apex the first sound was loud and accompanied by a systolic murmur, and the second sound was sharp. The pulse rate was 72, and the blood pressure in the arm 210/100. The blood pressure in the leg was difficult to obtain, but appeared to be about 125 (systolic). Arterial pulsation was marked above the clavicles, but not elsewhere. A radiograph of the heart was similar to one taken 10 years earlier, except that the left border of the heart appeared straighter and the apex almost at the left border of the chest (1/2 in. further to the left than 10 years before): typical rib-notching was present. Apart from left axis deviation there were no abnormal appearances in an electrocardiogram. The pregnant uterus presented no unusual features, the pelvis was of good size, and the urine was normal.

The patient remained extremely well throughout pregnancy, doing her own housework, taking walking exercise, and retiring to bed at 7.30 p.m. Her doctor found no cardiac, arterial, or urinary changes throughout, but on examining her 5 weeks before term he found premature labour to be starting, and she was admitted to hospital.

On admission the patient was seen by a surgical colleague (Mr. B. G. Scholefield), who had seen her in early pregnancy also: he agreed to the continuance of labour, but was ready to perform Caesarean section should this appear advisable. The progress of labour was very gradual, mild pains with 10 to 15 minutes' intervals continuing throughout the day. The patient was given a night's sleep (morphine gr. 1/4, atropine gr. 1/100), and labour continued the next day, dilatation of the os proceeding gradually without producing distress. The blood-pressure reading was unaltered by these pains, though some frontal headache was complained of after 11 p.m., the os being by then almost fully dilated. The change to second-stage pains was dramatic and alarming. These set in with rupture of the membranes, and the patient immediately became acutely distressed and breathless, and complained of severe headache. Pulsation of expansile appearance became pronounced at the root of the neck; the pulse rate was 128. Unfortunately it

A new sterilization decree has been issued in Norway by Quisling aimed at "inhibiting the reproductive capacity of mentally or physically defective persons whose children might suffer from the same weaknesses, and of insane or mentally defective people who have abnormally developed sexual impulses and might commit sexual offences." Doctors, prison and hospital officials, police, and social welfare institutions may propose an investigation with a view to sterilization, and decisions will be taken by the Director of Public Health alone. Under the law passed in 1934, the Director of Public Health could decide on cases only after they had been considered by a special board appointed by the public health department.

was impossible to delay to obtain a blood-pressure reading. The patient was at once anaesthetized, and at midnight was delivered by forceps of a living premature child of 5 lb. Convalescence was uneventful, and a radiograph of the heart and an electrocardiogram taken before discharge from hospital three weeks later showed no alterations from those taken in early pregnancy.

Comment

The decision to allow labour to continue rather than have early recourse to Caesarean section was prompted by the following considerations: the patient felt strong and well, was calm and confident, and was anxious to make the attempt; the infant was small and its presentation normal (L.O.A.), so that its passage might reasonably be expected to be an easy one; the early progress of cervical dilatation was free from fatigue and cardiac distress. In spite of these favourable circumstances the labour had to be stopped as soon as second-stage pains set in, as it was obvious that the tension in the upper circulation was being dangerously raised. With a full-time child, a less favourable presentation, a maternal heart having less reserve, or in the presence of more distressing first-stage pains, the danger-point might well be reached before dilatation was complete and delivery possible. This being so, it would appear that in cases of coarctation of the aorta, however favourable, the obstetrical procedure of choice is Caesarean section at the onset of labour.

My thanks are due to Dr. P. King Lewis for permission to publish this case, and for his share in its management.

REFERENCES

- Bramwell, C., and Longson, E. A. (1938). *Heart Disease and Pregnancy*, London
Jensen, J. (1938). *The Heart in Pregnancy*, St. Louis.
Strayhorn, W. O. (1936). *Med. Papers, Christian Birthday Volume*, p. 134,
Baltimore.

Medical Memoranda

A Case of Anaphylaxis after Anaesthesia

There has been a general tendency in the last 10 years to perform an increasing number of operations under local anaesthesia, and this tendency has been given an added impetus by the war. Local anaesthetics are cheap, convenient, portable, perhaps require no special training, and are more economical of man-power. It is therefore essential to know something of their relative toxicity.

Toxicity may be due to (a) rapid absorption, (b) idiosyncrasy, and (c) accidental injection into a vein. This last can usually be prevented by suction through the syringe, when the presence of blood is shown in the solution. This means that the needle must be removed and reinserted elsewhere.

In 217 cases of "conduction anaesthesia" with novutox* I have met with only one untoward incident. Novutox is the proprietary name for the preparation of 2% w/v solution of ethocaine hydrochloride with adrenaline 0.00002 g. per c.cm. in Ringer's solution with caprylhydrocupreinotoxin HCl in a proportion of 0.00002 g. per c.cm. and thymol 0.0004 g. per c.cm.

CASE HISTORY

The patient, a quite healthy individual, complained of severe muscular pain and was given an intramuscular injection of 0.75 c.cm. of novutox in the right flank, the area of maximum tenderness. Ten minutes later he had a severe itch in both arms, pain and dryness of the gums, thirst, and lacrimation. There was shivering, and the eyes became red; the nostrils were blocked, the voice became hoarse, and he was troubled with a severe throbbing pain in the head and frontal sinuses. The face, neck, and hands were livid and unbearably hot. His systolic B.P. was 210, the pulse 115 per minute, and the temperature 105°. He became speechless and dyspnoeic.

The patient's clothes were loosened, and the windows in the room widely opened. He was thoroughly mopped with a wet Turkish towel, which after each application to his face became hot and steaming. After 20 minutes he received 6 drachms of brandy without any effect. Tincture of spirit of ammonia was then given to inhale: this partially cleared the nasal and bronchial passages. In about 45 minutes from the outset he began to speak incoherently in a muffled nasal way. Respiration, though easier, was still laboured, and he now felt cold and shivering. He was at once given a hypodermic injection of two minims of adrenaline hydrochloride, and in exactly 10 minutes was able to dress himself, and his B.P. came down to 180 mm. Hg, the pulse to 84, and the temperature to 99.5°. In another 10 minutes he took a cup of tea and felt much better.

He travelled in a public conveyance home, where I visited him the next day. He was pale but in good humour, joked about his experience, and said that he thought he was going to pass out.

R. ARMATTOE, L.R.C.P.&S.Ed.

* Novutox does not contain cocaine, is not on the D.D.A., and is five times less toxic than cocaine.

Reviews

NEPHRITIS

Nephritis. By Leopold Lichtwitz, M.D. (Pp. 328. 25s.) London: William Heinemann. 1942.

Prof. Lichtwitz, who is now in New York and who is well known for his many contributions in the past to the German literature of kidney disease, has recently given English workers the benefit of his experience in a short readable volume. A large part of the book is devoted to discussions on the physiology and functional pathology of renal disease, including such conditions as water metabolism, albuminuria, oedema, and uraemia. He describes the method of testing the function and capacity of the kidney which has been in use in his clinics for many years. This, in its simplest form, merely consists of an estimation of the excretion of solid substances by measurement of specific gravity and urinary volume under standard conditions. It can thus be carried out by any clinician without expert laboratory assistance. Further information can be gained by studying the excretion of chloride and urea over a period while the patient is on a special diet designed to test his excretory capacity. This section, the more physiological, is undoubtedly the best in the book, which, however, regarded as a textbook on nephritis, is rather disappointing. The author follows, on the whole, the German school, and his references are very largely of German origin. The more recent work of English and American authors is given scanty consideration or, in some cases, none at all. This is especially regrettable as the work of Goldblatt on hypertension and the recent writings of Ellis and Wilson in this country have done so much to clarify a difficult chapter in medicine.

Lichtwitz does not attempt any satisfactory classification of kidney disease. He deals only briefly with essential hypertension, but does not stress the importance of the malignant type. Even if he holds that this is not primarily a disease of the kidney, it is surely of the greatest importance in differential diagnosis. His consideration of uraemia, again, rather takes us back to the days when there was no clear distinction between true chemical uraemia and many similar symptoms which are caused by acute or chronic states of hypertension. The book is well worth reading by anyone particularly interested in renal disease, as it gives a new viewpoint on many aspects of the subject, and brings the English reader an easy summary of Continental literature. It cannot, however, be considered a comprehensive or even an up-to-date statement of present-day views on nephritis.

HUMAN NUTRITION

Food and Planning. By J. R. Marrack, M.D., D.S.O., M.C. With a preface by Sir John Boyd Orr, D.S.O., M.C. (Pp. 285. 15s.) London: Victor Gollancz, Ltd. 1942.

This admirable book is about to appear, we understand, in a second printing; therein doubtless several minor printer's errors will have received attention. The chief, if not the only serious, defect of the first edition will also, it is hoped, be put right. It is obvious from internal evidence that a very long time must have elapsed—long, anyhow, in relation to the rapidly changing circumstances of to-day—between the author's completion of his manuscript and the publication of the book. Thus, Table I contains no analytical data for national bread (only for white and for wholemeal), while banana and orange are both included in that table. It is also a pity when publishers, expert in catering for their own general or specialized publics, should presume to knowledge about the requirements of other publics, and then show themselves lacking in this knowledge; the publications of the Left Book Club or of Miss Dorothy Sayers can generally, if not always, dispense with an index, but its removal from Prof. Marrack's manuscript (wherein he must certainly have included it) has almost fatally affected the book's permanent utility, especially as it covers the whole of the very wide field over which those interested in human nutrition must to-day cast their eyes. Prof. Marrack ranges easily and lucidly from the structural formulae of pure vitamins to the less obvious implications