removed from both sides. On July 30 all the wounds were dry and he was allowed up. No obvious change for the worse had occurred in his mental condition. Skiagrams of the skull revealed a gap in the frontal bone measuring 3 in. by 2 in. (7.5×5 cm). It is proposed to close this gap by a bone-graft at a later date.

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A Case of Locked Twins

This note on a case of locked twins is offered in the belief that all such cases should be reported to assist future compilations.

CASE HISTORY

Mrs. A., aged 23, a para-1 gravida-2, was admitted to Dilston Hall Maternity Hospital at 6 a.m. on April 17, 1944. The patient was at full term by dates and had been in labour for about two hours. On admission the fact of labour was confirmed, and her case was diagnosed as a singleton breech presentation with membranes ruptured. At 8.30 a.m. the day-staff labour ward sister first saw her, and on separating the labia she noted: (a) two small feet presenting which from their size she diagnosed as belonging to a twin, and (b) a short loop of prolapsed cord which was thin and almost pulseless. She called me, and I was available in a matter of minutes.

I found the patient in the lithotomy position ready for delivery with both feet protruding from the vulva and a 5-in. (12.5-cm.) loop of cord with them. The feet showed signs of life. The cord was not palpated. The cervix was fully dilated and withdrawn. The feet, knees, and breech were extracted and delivery was made as far as the umbilicus. Progress then ceased. Chloroform induction was begun, but before anaesthesia was established I was able to reach up to the maternal left side of the pelvis and feel a vertex about 1 in. (2.5 cm.) above the level of the ischial spine of that side. While the uterus was relaxed it was easy to push back this vertex, using two fingers only, and to secure the posterior arm of the leading twin. The anterior arm was then freed. The first twin was then easily delivered by extension-traction, using the left hand, while two fingers of the right hand were employed in holding back the second vertex above the brim of the pelvis.

The first twin was "shocked," but responded to treatment quickly. The second twin was born spontaneously by the vertex ten minutes later. It was in very good condition. The prolapsed cord belonged to the first twin.

The twins were both males and appeared to be uniovular, weighing 4 lb. 10 oz. (2.1 kg.) and 5 lb. 3 oz. (2.35 kg.) respectively. They made normal progress, being discharged on the 22nd day weighing 5 lb. 4 oz. (2.38 kg.) and 5 lb. 6 oz. (2.44 kg.) respectively. The maternal recovery was satisfactory and afebrile.

Interesting points in the above case are: the presentations were breech-vertex; the twins were uniovular; both bags of membranes had ruptured spontaneously; early diagnosis was facilitated by the need for medical aid for prolapse of the cord; obstructed labour did not arise; in the easy conditions it was possible to make the required manipulations before anaesthesia was established; and both twins were secured alive.

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Penicillin in Chronic Ear Disease

The persistence of treatment-resistant cases of chronic ear disease in personnel of H.M. ships not only causes despondency in the medical department but debars these men from certain duties, such as those necessitating wearing ear-phones, etc., where they are liable to pass on their infection to the next "watch." Therefore it was decided to treat a number of cases in our ship with local penicillin in the hope of getting better results. Conditions were ideal in that the ship was operating in a temperate climate with normal humidity.

Cases with histories of chronic ear disease, each of which had been under treatment for exacerbations of their chronic condition in the ship but were then in a more or less quiescent state, were selected. A careful history of each case was taken, though records of previous examinations and treatment were lacking in several instances. Bacteriological cultures were grown and white cell counts were done before and after the experiment. Those men, whose ears produced growths of organisms which are not sensitive to penicillin, were treated in like manner, as it was considered that they would be useful controls.

TECHNIQUE

Using every possible aseptic precaution, including the wearing of sterile gown and mask, a solution of penicillin was prepared by dissolving 100,000 units of penicillin in 64 c.cm. of sterile distilled water; this was divided equally into four sterile bottles for use on four successive days.

The aural meatuses were carefully mopped out with pledgets, followed by the instillation of 1 c.cm. of solution (approximately

1,560 units of penicillin). The patient's head was kept tilted for at least five minutes, after which the solution was encouraged to remain in the meatus by the introduction of small sterile gauze wicks. This routine was repeated every twelve hours for four days. Each case thus received 12,500 units of penicillin. In cases with tympanic perforations the solution went in easily enough and did not tend to run out, but in cases with intact drums and narrow meatuses 1 c.cm. of the solution could be instilled therein only with care and patience. These cases were followed up for two months after treatment.

SUMMARY OF RESULTS

(1) All cases caused by penicillin-sensitive organisms (e.g., *Staph. albus*) were cured. (2) Where mixed infections existed the condition was improved only—leaving the penicillin-resistant bacteria unchanged. (3) Where only penicillin-resistant organisms (e.g., *B. proteus*, *Ps. pyocyanea*, and *M. catarrhalis*, etc.) were demonstrated the condition remained unaltered. (4) Comparatively small doses of penicillin eliminated penicillin-sensitive organisms. (5) The local application of penicillin solution only was tried: insufflation of powdered penicillin might offer an improved technique. (6) The raised white blood cell count returned to normal within two to three weeks in those cases which were cured. (7) It was demonstrated that before treating suppurative otitis the causative organism must be identified, and only those cases which are caused by penicillin-sensitive organisms are worthy of penicillin therapy.

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Ether Convulsions with Hyperpyrexia

The following case of ether convulsions is of interest in that the high temperature recorded tends to support the heat-stroke theory of causation. One feels that the conditions under which this operation was performed were such as to produce a rapid rise in the patient's temperature, and as he was already pyrexial at the time of the operation a state of hyperpyrexia was attained, which, with the neurogenic stimuli postulated by Brennan (1941), may have been the precipitating factor in the convulsive attack.

CASE RECORD

The patient, a healthy young soldier, was admitted to this hospital on a sultry evening in Aug., 1943, with acute obstructive appendicitis and symptoms of peritonitis. His temperature on admission was 100° F. The operation was carried out, under black-out conditions, in an operating theatre of the wooden emergency hospital type, the walls of which have considerable heat-retaining properties. The windows were covered with shutters of wall-board, so that ventilation was almost non-existent. As the sterilizing room communicated freely with the main theatre the latter soon became uncomfortably warm and humid, and, with only one small fan of the suction type, little could be done to control the temperature. The anaesthetic was given with the standard Boyle apparatus, a gas, oxygen, and ether mixture being used. Mackintosh sheets were employed as well as towels to shut off the operation area, with the result that as the patient was completely enclosed with the exception of that portion of his face not covered by the anaesthetic mask and the Clausen harness, little heat loss was possible.

The operation and anaesthesia proceeded smoothly at first, a gangrenous appendix being removed and a suprapubic drain inserted on account of the large quantity of thin purulent fluid found in the abdomen. The operation had been in progress for about half an hour and the peritoneum had, fortunately, just been closed, when ether convulsions began without warning. The patient's body and limbs were shaken by rapid clonic convulsions of moderate severity.

Owing to the involvement of the muscles of respiration, cyanosis rapidly developed, and was only partially relieved by administering pure oxygen and applying artificial respiration. A solution of pentothal was quickly prepared and given intravenously, 3 c.cm. (0.15 g.) being sufficient to stop the convulsions with dramatic suddenness, followed by the resumption of normal respiration.

The wound was now rapidly closed and at the same time the rectal temperature was taken and found to be 106.6° F. The coverings were then removed from the patient and tepid sponging of the chest, arms, and legs begun, being continued until the temperature was reduced to 103° F., when the patient was returned to the ward. During the night the temperature continued to fall, and next morning he appeared to have suffered no ill effects from his ordeal. He proceeded to make a complete recovery.

My thanks are due to the medical superintendent of the hospital for permission to publish this case.

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