

ing in that it is as strongly positive as the original. It shows the value of the test in making a retrospective diagnosis in a case which is suspected only some time after recovery. Such a strongly positive reaction as that given by the present patient may not be found, as the duration of antibodies after recovery is variable. An interesting speculation on the present reaction is that it may be caused by persistent infection.

Finally, treatment was purely symptomatic. A total of 20 grammes of sulphapyridine (M & B 693) was given by mouth, on the dosage scale recommended for pneumonia, beginning on December 5, without producing any change whatever in the patient's general condition or in the lung signs.

I wish to thank Professor S. P. Bedson for his co-operation in carrying out the necessary serological tests and for his permission to publish the detailed results of such tests.

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## Clinical Memoranda

### Chemotherapy of Middle-ear Disease in Dispensary Practice

The pneumococcus is often enough responsible for middle-ear infection to suggest the use of sulphapyridine (M & B 693) as a curative agent in this condition. In a short series of cases treated at a municipal dispensary this drug produced considerable benefit in some instances, while in others no therapeutic action was discernible.

## ACUTE CASES

*Case 1.*—A child aged 14 months had a red bulging tympanum, injection of fauces, and a temperature of 101° F. A dose of 0.25 gramme of sulphapyridine was given every three hours. The temperature fell to normal within eighteen hours, and the ear was cured by the third day.

*Case 2.*—A child aged 4½ had the same symptoms as in Case 1, but complained of severe pain in the ear. The child looked extremely ill—the type of case that one expects to require mastoidectomy. Sulphapyridine, 0.5 gramme thrice daily, was given, and all symptoms cleared up rapidly and left no impairment of hearing.

*Case 3.*—A child aged 5 had been "awake and screaming all night." When first seen the next morning the membrane had just ruptured and pus was discharging freely. From the pus pneumococci were recovered by culture, and on a slide staphylococci and streptococci were seen. Streptococci and staphylococci in cultures from the skin around the ear did not correspond morphologically with those from the middle ear. On 0.5 gramme of sulphapyridine thrice daily the ear was dry within four days.

*Case 4.*—A child aged 6 had the membrane ruptured two days before the beginning of treatment. From the discharge staphylococci and streptococci were obtained, but no pneumococci. Here, too, the organisms from the discharge differed morphologically from those of the skin of the outer ear. This case cleared up as quickly as Case 3 on the same dosage.

## CHRONIC CASES

Eighteen cases of chronic ear discharge, ranging between 3 and 63 years of age, had symptoms persisting from two to twenty years. All of them had been treated for long periods by "ear drops" of various kinds. Cultures of the pus from these cases contained no pneumococci, but abundant staphylo-

cocci and streptococci. A few filamentous bacteria were seen on direct slide preparations of pus, but could not be cultured. It was noticeable that the staphylococci were smaller and less numerous than in the acute cases, and corresponded exactly with those obtained from the skin of the outer ear.

Prolonged administration of sulphapyridine in these cases brought about no diminution of discharge, except in the case of a child aged 3 in whom the discharge lessened but did not entirely disappear. This intractable chronic condition was evidently due to the replacing of the original invading organisms (themselves susceptible to the early use of drugs) by the ordinary flora of the skin of the external ear.

From the foregoing it is apparent that sulphapyridine is of value in the treatment of acute middle-ear infection, even when it occurs in malnourished children brought up under the poorest economic conditions. It is equally clear that, in the dosage employed, the most potent and polyvalent chemotherapeutic remedy yet evolved fails to benefit chronic ear conditions. These findings suggest the desirability of the early use of a suitable sulphonamide drug in all acute middle-ear infections, as thereby the number of chronic cases will be reduced to a minimum. Seven months after treatment I examined the acute cases and there was no deafness.

My thanks are due to the medical officer of health for Glasgow for permission to publish these notes.

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### Strangulated Inguinal Hernia in an Infant

The following notes may be of interest on account of the rarity of strangulation in so young a child and because the condition suggested that, in addition to the loop of gut being adherent to the distal part of the sac, there was kinking of the loop by adhesions which were obviously not of very recent formation.

## CASE REPORT

The patient, aged 14 days, was a full-term male of normal delivery, weighing 8 lb. at birth, and had been breast-fed four-hourly. For the first three days after birth it was somewhat cyanosed, had a cough, and vomited occasionally. On the day before admission it had vomited two or three times, had refused the breast, and was said to have become cyanosed during the day.

On examination it was not markedly dehydrated. The scrotum and prepuce were swollen, red, and oedematous. Both testicles were descended, and the right side of the scrotum was filled with a fluctuating swelling the size of a bantam's egg running up into the inguinal canal. The swelling was translucent to light and partly reducible with gentle continuous pressure. During the night and early the next day the child vomited some bile-stained fluid several times and passed a little clear red fluid per rectum.

An anaesthetic was given, and at operation a strangulated loop of small bowel was found in a thick sac containing much sanguineous fluid, strangulation having occurred at the level of the internal ring, and a few muscle fibres in this region had to be divided to release it. The loop of bowel was adherent to the distal part of the sac, and when delivered was found to be kinked by considerable adhesions between the afferent and efferent limbs of the loop at its distal end. These were divided and the bowel, which was very black but still viable, was returned to the abdomen. As the child's condition after ten minutes of anaesthesia was poor the sac was divided and ligated in its upper part, but no attempt was made to remove the scrotal portion. A small drain was inserted in the scrotum. The next day a little bile-stained fluid was passed per rectum, and from then onwards the stools were normal. The baby was fed on a dried milk mixture and made an uninterrupted recovery, gaining 3 oz. in the first week after operation.

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