2. Seventy-six patients who had had scarlet fever nine months previously were Dick-tested. These cases had all been treated with anti-scarlatinal serum. This latter group automatically selected itself, as anti-scarlatinal serum had only been used for the first time on these cases.

Great care was taken in all these cases to ascertain by reference to hospital records that the attack of scarlet fever was genuine. Rosen and Korobicina call attention to this in one of their papers. Other workers on the results of the Dick test in patients with a history of scarlet fever have not stated that they took similar precautions.

1. In all of these 83 patients the Dick test was negative, thus indicating that they are no longer susceptible to scarlet fever. Rosen and Korobicina, in a series of 111 cases with a history of scarlet fever, obtained 23.4 per cent. of positives. However, in another series of 14 persons in whom the history was verified, they found that 2 only were positive and that these 2 had suffered from scarlet fever twenty and thirty-five years previously. It would seem, therefore, that where a history of scarlet fever is verified the Dick reaction is negative in practically every case, thus indicating immunity to scarlet fever.

2. Of the 76 cases treated by serum nine months previously, 8, or 10.52 per cent., gave a positive Dick reaction. These 8 patients had not developed their anti-toxic immunity. In the present state of our knowledge of immunity to scarlet fever it is impossible to state that the positive Dick test does indicate a lack of immunity to scarlet fever. Davies of Yale, from his investigations on a similar group of cases, considers that there may be some disadvantage in the use of anti-scarlatinal serum from the point of view of subsequent immunity to the disease. It may be that second attacks of scarlet fever will become more frequent. In this connexion it is interesting to note that the only case of a second attack of scarlet fever observed by myself during the course of this investigation occurred in a girl, 6 years of age, who had been treated with serum for a mild attack four months previously. Both attacks were undoubted, and the second more severe than the first. It is too early yet to look for confirmation of this aspect of the effect of serum administration.

This investigation was carried out in the County Fever Hospital, Motherwell, during the winter 1926-27, and I am much indebted to Dr. John Reid, the medical superintendent, for facilities provided and for much helpful criticism.

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LACERATION OF THE ANTERIOR WALL OF THE FEMALE URETHRA AND ITS REPAIR.

BY

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EXAMPLES of laceration of the posterior wall of the female urethra are relatively, though decreasingly, common in midwifery, and although tears of the anterior wall are not unknown yet the peculiarities of this case may make it worth recording.

A 5-para, aged 31, was admitted to hospital four weeks after delivery of her last child. Forceps were used and the child was stillborn. She had persistent incontinence of urine throughout her convalescence, and came into hospital with a provisional diagnosis of vesico-vaginal fistula. Albumin and pus were present in the urine.

Whilst under an anaesthetic the patient was placed in the lithotomy position. On examination the posterior wall

of the urethra was found to be intact. The external urethral orifice was torn and ragged, and appeared to be dilated to about half an inch diameter. The little finger could easily be passed into the urethra, and the anterior wall was found to be torn for nearly an inch in length. This communicated with a large infected cavity behind the pubic arch, and the bare bone of the posterior aspect of the symphysis pubis could be palpated. It appeared as though the whole pelvic structures had been torn away from the pubes.

FIG. 1.

FIG. 2.

FIG. 3.

FIG. 4.

Diagrams of First Operation.

FIG. 5.

FIG. 6.

FIG. 7.

Diagrams of Second Operation.

An attempt was made to free the torn edges of the urethra, and this was repaired with interrupted catgut sutures. Three or four sutures were inserted anterior to the urethral wall in order to pull the lateral tissues somewhat together. A eusol gauze pack was placed in the cavity, the pack emerging at the vulva above the repaired urethral orifice. A self-retaining catheter was inserted into the bladder.

An evening rise in temperature occurred for four days, but was never more than 100.4°. The gauze pack was gradually decreased and the cavity closed completely, whilst the catheter was retained until the fifteenth day. For the following five days there was frequency and urgency of micturition, but no actual incontinence. Incontinence, however, did recur, and the patient was allowed to return home after two months in hospital.

She was readmitted two months later when her general condition was improved. The anterior wall of the urethra was found to be torn for about half an inch in length, and a great deal of contracted fibrous tissue was present round it. The urethra was pulled out taut and a small incision made along either side of the gaping urethra. The urethral walls were trimmed and brought together by means of interrupted catgut sutures. Two catgut sutures were put into the side wounds and a self-retaining catheter placed with some difficulty into the bladder. The catheter was retained for three days and then had to be removed. After a few days the patient had complete control over micturition; only occasional frequency occurred, and the anterior wall of the urethra healed perfectly.

I am indebted to the surgeon in charge, Dr. E. O. Croft, senior honorary surgeon to the Leeds Hospital for Women and Children, for permission to publish this case.