tumour extends $\frac{1}{2}$ inch below the level of the umbilicus, and 1 inch across the middle line. It can be distinctly felt in the flank, and can be easily moved when one hand is placed on the front of the abdomen and the other in the flank. Urine: acid, specific gravity 1018, contains a considerable amount of albumen.

June 27th, 1891. An incision was made over the centre of the tumour, as in the case last described, and a similar mode of procedure carried out. The only difficulty which was in this case experienced was due to the firm adhesion of portions of the cyst to the ectocyst wall, necessitating the leaving of some portions of the cyst wall behind in places. The patient was very ill for several days after the operation, but eventually made a good recovery, and left the hospital on August 21st.

It has seemed to me to be worth placing on record these cases, inasmuch as the plan which was adopted for their removal has but rarely been followed. A somewhat similar plan was pursued by Mr. Bond in a case which was described by him in No. 1580 of the BRITISH MEDICAL JOURNAL, but in this case the hydatid tumours were multiple, and were all situated outside the liver, thus enabling him to close the cyst cavity at once and omit the drain. In the case of the liver this plan might possibly be attended with considerable risk, as the walls of the cavity would not so easily fall together; and, judging from the amount of fluid that drains away during the first few days, might easily give rise to trouble from the presence of pent-up fluid. In my own cases those healed most rapidly in which the cyst was close to the surface of the liver, and was thus able to be readily compressed by the positive intra-abdominal pressure.

The last of the cases recorded above was a hydatid of the kidney. It is here included with a view to show how much such conditions are complicated when adhesions have taken place between the cyst wall and the surrounding tissues. When once the pieces of adherent cyst had come away, the patient began rapidly to mend. If such cysts are to be removed, they should be taken in hand early, before any adhesions have been set up. With due care on the part of the surgeon, it seems likely that this plan of treatment will prove more successful than any other.

ON THE SKIN ERUPTIONS WHICH OCCUR IN SEPTICÆMIA FOLLOWING SCARLET FEVER AND DIPHtheria.

By N. S. MANNING, F.R.C.S.I.,
Medical Superintendent of the City Hospital, Birmingham.

In 2.1 per cent. of nearly 6,000 cases of scarlet fever and diphtheria treated under my care in the City Hospital, Birmingham, and in 4.8 per cent. of the patients that were under 5 years of age, a condition supervened which was accompanied by a characteristic skin eruption, increase of temperature, wasting of the tissues, and loss of power; and which, on account of the high mortality that followed, may well be considered one of the most important complications that can become superadded to these diseases.

The exciting cause appeared to be the absorption into the system of a toxic agent or poison which was engendered by tissue necrosis taking place in septic surroundings, and though in the cases at present under consideration, it followed the process of ulceration in the throat, mouth, and nasal cavity in scarlet fever and diphtheria, it may also be brought about by many other conditions, such as sloughing and suppurating burns, or other wounds, in the puerperal state, in the third week of enteric fever, or, broadly speaking, by purulent infection from any cause.

The following table gives some particulars as to the numbers, ages, and mortality in the cases under notice.

AGE.

As will be seen, the age of the patient exerted the most powerful predisposing cause in determining the disease; nearly 60 per cent of the cases were under 3 years old. The reason of this is very obvious when we remember how difficult, if not impossible, it is to keep the throat lesions in patients of such tender years in anything like an aseptic condition, and how prone they are to swallow the discharge from the ulcerated surfaces.

PERIOD AND MODE OF ONSET.

The attack came on usually during the second week of the scarlet fever illness; in 80 per cent. of the total cases it was

Age.	Total Number of Cases Treated in the Hospital.	Number of Cases of Septic Rash that Occurred.	Number of Fatal Cases.	Percentage Occurrence on the Total Number Treated in the Hospital.	Percentage Mortality of the Cases Attacked.
Under 1 Year ...	64	12	11	19.0	91.6
" 2 " ...	391	41	35	10.4	85.3
" 3 " ...	587	33	27	5.6	81.8
" 4 " ...	577	15	14	2.6	93.3
" 5 " ...	671	9	3	1.3	33.3
Total under 5 Years ...	2,290	110	90	4.8	81.8
5 Years and upwards ...	3,622	18	12	0.5	66.6
Total ...	5,921	128	102	2.1	79.6

noticed from the seventh to the fifteenth day, but it may appear as early as the fifth day or as late as the thirtieth. The invasion was gradual rather than sudden, and in many cases was even insidious in its onset. As a rule, however, in acute cases from twelve to twenty-four hours before the eruption came out there was an increase of temperature with restlessness, sleeplessness, and an exacerbation of the throat lesions.

CHARACTER OF ERUPTION.

The eruption appeared as red or dark pink coloured spots or blotches, with well defined margins in the skin over prominent bony points such as the ankles, finger-joints, elbows, outer sides of the feet, and the extensor surfaces of the toes; occasionally a crop of small red papules on the arms and legs preceded the blotches. The spots or blotches, when first seen, varied in size in different cases from about that of a six-penny piece to large irregular-shaped patches; they disappeared on pressure, and quickly reappeared when the pressure was removed. In about 80 per cent. of the cases the eruption appeared in the order given above, but sometimes it was first seen on the face, in which situation the most usual distribution was the upper eyelids and malar eminences. I might remark here that I have found this distribution of the rash so uniform in its early stages, and so characteristic of the disease, that in cases where I suspect its occurrence I look most carefully in these situations for its existence. In many cases, after the appearance of the rash, what seemed a halt in the progress of the disease took place; no manifest change occurred for some days, or the spots faded and again appeared, and in some slight cases the disappearance was permanent; in severe cases, however, this check, as a rule, was not seen; the rash extended rapidly over the limbs, in some instances as large irregular-shaped maculæ, red or pinkish in colour, and slightly raised above the level of the skin; in others in the form of diffuse patches of various shapes and sizes. It usually invaded the trunk on the second or third day from its first appearance, in which situation the macular or blotched form was replaced by a diffuse erythema. About this period of the eruption—second or third day—it also became diffuse on the limbs by the rapid increase in size and confluence of the spots. In a less numerous class of cases the eruption remained macular for a longer period, but if the attack were severe and the patient survived long enough the tendency always was for the rash to become general.

The time which the eruption took in reaching its maximum point of development is thus seen to have varied considerably in different cases, and when this point was attained a decline or fading took place which was followed by a profuse desquamation of the cuticle. This subsidence, scarcely ever permanent, was quickly followed by a recrudescence; the temperature, which usually declined with the fading of the rash, again went up, and in from twelve to twenty-four hours a second eruption came out which more rapidly than the former spread over the body; there was also an aggravation of all the local and general symptoms, and the cycle was completed by another desquamation of the cuticle. In this way I have been able to raise three distinct parchment-like layers of epidermis on the hypothenar eminence of a child's hand, which could be turned over like the leaves of a book: (1)

scarlet fever desquamation, (2) septic fever, and (3) relapse of septic fever.

THE GENERAL SYMPTOMS.

The temperature was essentially irregular, and was seen to vary much in different cases; usually, however, the temperature curve was within the limits of from 100° to 104° F., but even in the same case the extreme limits often varied from 98° to over 105°; the diurnally up and down or "spiked" temperature seen in enteric fever or hectic conditions was never observed. As already mentioned, a defervescence took place in many cases with the decline of the rash, which was followed by a rise before each recrudescence, and at this point, which one might term the invasion of the relapse, death frequently occurred. The heart's action was rapid, beating from 103 to 200 per minute. Nervous disturbances, indicated by such symptoms as restlessness, sleeplessness, and muscular tremors, was commonly met with, and in some cases there was marked drowsiness. The progress of the disease was always accompanied by rapid wasting, in a few days the sufferers presenting quite an emaciated appearance. When the urine could be obtained for examination albumen was sometimes found. Septic pneumonia, diarrhoea, or obstinate vomiting frequently supervened where the patient survived beyond four or five days, and rapidly proved fatal. The condition of the throat was most important to the welfare of the patients all through the attack; the ulceration spread over the tonsils, pillars of the fauces, pharynx, and soft palate, and in many cases to the tongue and gums, engaging the deeper structures in the region of the throat, and often producing large irregular perforations of the soft palate. There was also a profuse discharge of muco-pus from the throat and nose, and a foul-smelling ichorous otorrhoea. In fatal cases, as the end approached the secretions of the mouth dried up, sordes formed on the teeth, the tongue became glazed, the lips cracked, and bled on the slightest touch: there was also suffusion of the conjunctivæ, and more or less fixation of the eyeballs, which gave the eyes a staring expression, and finally the patient lapsed into an ataxic condition. When this stage was reached the sufferers presented a very repulsive appearance, and, in addition, a sickly odour pervaded their immediate vicinity.

The duration of the attack varied greatly, the extremes in fatal cases being from two days to thirty, but between 70 and 80 per cent. died during the first week. In non-fatal cases the eruption disappeared in over 80 per cent. within five days, in 15 per cent. from five to ten days, in 1 case it remained till the fourteenth, and in another till the twenty-second day.

POST-MORTEM APPEARANCES.

The most constant morbid appearance found *post mortem* was an inflammatory zone one or two lines wide round the attached margins of the mitral and tricuspid valves of the heart; in this situation in many cases the endocardium was found thickened and injected. The *post mortem* coagulation of the blood seemed to take place in a normal way; more or less congestion of the lungs was seen in almost every case, and in cases where pneumonia was present the anatomical appearances of that disease were found; the kidneys also were usually congested, and where microscopic examination was made "cloudy swelling" was seen. In the other organs no changes were noticed.

TREATMENT.

The treatment may be divided into prophylactic and curative; in the former much can be done by careful attention to the condition of the throat, the removal of the exciting cause by keeping the ulcerated parts in as clean and aseptic a condition as possible is all important. This, in my experience, can best be attained by irrigation. The use of caustics or other irritants during the inflammatory stage cannot be too strongly deprecated. Healthy surroundings, proper diet, and good nursing, are of course most essential. In the way of curative treatment, little can be done except follow up the lines already indicated, and support the patient's strength by every means possible. The administration of drugs, except for the relief of special symptoms, I have not seen attended with any beneficial results.

DIAGNOSIS.

The disease with which this condition is most frequently confounded is scarlet fever, and indeed its occurrence even during an attack of this exanthem is regarded by most authorities as a relapse of the disease. The invasion, the distribution of the rashes in the early stages, and the course which the two diseases run are so entirely different that a diagnosis is easily made; moreover, in cases that arise during the course of other diseases, in addition to the differences just stated, there is an absence of the throat lesion and that characteristic condition of the tongue—signs that should guide us almost more than any other in determining an attack of scarlet fever—but there is no doubt that the eruption when fully developed resembling so closely the intense or blotched rashes often seen in scarlet fever and the subsequent desquamation, combine to render a correct diagnosis difficult if the primary symptoms have not been carefully observed. It is also confounded with measles, röteln, eruptions produced by drugs, urticaria, erysipelas, etc.; and although the eruption sometimes resembles that of measles and röteln, by attention to the invasion the early distribution of the rash and the absence of the catarrhal symptoms found in these diseases—more especially measles—it is always easy to arrive at a diagnosis. In the other conditions named the differences are so many and so manifest that a correct diagnosis should present no difficulty.

THE TREATMENT OF STRICTURE OF THE URETHRA,

WITH NOTES OF SIXTY CASES.¹

By F. A. SOUTHAM, M.B. Oxon., F.R.C.S.,
Surgeon to the Manchester Royal Infirmary.

DURING the last three years sixty cases of stricture of the urethra have been under treatment in my wards at the Manchester Royal Infirmary. Of these, twelve were admitted with retention, and three with extravasation of urine, most of the remaining forty-five being sent in from the out-patient department, as their cases were found unsuitable for treatment while attending the hospital as out-patients.

In five of the twelve patients suffering from retention, suprapubic aspiration of the bladder was performed with satisfactory results: in the other seven, the retention was relieved by the usual treatment, opium and a warm bath. As regards the stricture itself, the following was the general course of treatment which was followed out. In every instance, where the stricture was pervious to instruments, an attempt was first made to cure it by gradual dilatation. If, however, after a fair trial, the stricture refused to, or did not readily, dilate, then internal urethrotomy was performed, recourse being had to external urethrotomy only in those cases where no instrument could be passed through the constriction.

GRADUAL DILATATION.

Gradual dilatation was successfully effected in twenty-nine cases, olivary bougies being passed until the stricture would admit a No. 5 (English size), Lister's sounds being afterwards employed, commencing with No. 5-8, and gradually increasing in size up to No. 9-12. As this treatment is frequently carried out by the dressers under the supervision of the house-surgeon or myself, I make it a rule never to allow a fine metallic instrument to be used, on account of the risk of producing a false passage.

INTERNAL URETHROTOMY.

Internal urethrotomy was performed in sixteen cases, where the stricture being resilient or irritable did not yield to gradual dilatation—in every instance with a most successful result. The instrument used was Teevan's urethrotome, screwed on to a filiform bougie, or "ferret," passed as a guide through the stricture, which was divided from before backwards along its upper wall. In every case, preparatory to operation and while a preliminary attempt was being made to dilate the stricture, the urine (which, if not alkaline, was generally neutral or only feebly acid, often

¹ A communication to the Manchester Clinical Society.