silk, and for the skin silkworm gut. A fresh guard is then applied to the wound which is afterwards to be dressed, or the latter may be at once sealed with collodion.

We now for the first time uncover the scrotum and can complete the operation very quickly. The testis is held up firmly between the index and middle fingers of the left hand, and a short, straight incision made over it, unless there be a septic opening in the skin which would be cut out by two curved incisions. As soon as the skin is divided the entire testis, with its appendages and the whole length of the cord, is squeezed forward and can be torn out of this wound. The edges of the latter are still held and clamped by the fingers of the left hand, and before it is released a number of straight needles bearing sutures are thrust through its opposed edges. The grasp of the left hand being now slightly relaxed it will be found that any cut veins are readily seized and tied, while in some cases it is unnecessary to secure any of these as they are controlled by the sutures. Finally, the clamping fingers are again tightened and the needles are drawn out and the sutures tied by an assistant, the clamping action of the fingers having brought the skin edges into good position, so that accurate suturing is much more easy than in ordinary scrotal operations.

This method of operating may at first sight appear needlessly complicated, but it is actually most easy to perform. The total length of incision is less than the ordinary operation for ulcerating disease of the testis with high division of the cord, and the time required is probably shortened, especially as suturing is so readily performed.

That the operation is efficacious in its primary object is indicated by the fact that in all cases the upper or pubic wound has healed by primary union, the silk ligatures and sutures giving no trouble. In two instances of tuberculous disease with ulceration the scrotal wound became infected, but the important pubic wound remained absolutely aseptic.

My colleague, Mr. J. W. Smith, informs me that he has recently adopted a similar method of operation by double incision in a case of troublesome suppurative tuberculosis of the testis, without having been aware that I had been practising it, and he also has been much pleased with its simplicity and its satisfactory results.

INTRAPERITONEAL ABSCESS DUE TO PNEUMOCOCCUS.

By STANLEY BOYD, M.B., F.R.C.S.,
Surgeon, Charing Cross Hospital and Brompton Hospital for
Consumption.

Mrs. A. R., 26 years, was sent to me at Charing Cross Hospital late on November 1st, 1902, by Dr. Rogers, of Belvedere. She had had three children, the youngest being 6 years old; no pregnancy since. Menstruation had been quite regular, and—four weeks ago—she was expecting a period when the present illness began. Except that she was inclined to constipation, she was perfectly well. She was suddenly seized with severe pain in the lower abdomen, and became rapidly collapsed. So serious was her condition that when Dr. Rogers saw her, shortly after the onset of the pain, he was afraid to move her even to the Cottage Hospital. He thought that either a tubal gestation had ruptured or that some viscus had perforated. There was no vaginal discharge. Within an hour incessant vomiting and diarrhoea came on and lasted for six hours, since when there has been marked constipation. Micturition normal. The abdomen soon became distended, but this together with the pain gradually subsided and disappeared in about a week, tenderness lasting somewhat longer. During the first week the temperature reached 102° to 103° daily. For the next fortnight she was kept in bed because she was so weak, but she was free from pain.

Six days before admission, pain, abdominal distension, and fever recurred and increased, and she again became very ill. When she reached Charing Cross she was found to be a well-nourished woman, in obvious pain; she did not move from dorsal decubitus if she could avoid it. Temperature, 102.8°; pulse, 136; respirations, 30. The abdomen was curiously distended, being full from the pubes to the navel, and thence outwards and upwards upon either side into the iliac and lumbar regions, reaching even to the ribs. This fullness was more obvious to touch, and a distinct wave was obtained across its area. The regions named were dull, except behind

the loins, where some resonance persisted. Respiratory movements of the abdomen were fair. Per vaginam a firm, tube-like body was felt in the right half of Douglas's pouch.

It seemed probable that some acute infection of the pelvic peritoneum had occurred at the onset of the illness, that after a week the inflammatory exudate became well shut off, but that in the fourth week fresh and pretty rapid increase of the exudate occurred, and the adherent intestines, etc., round about it were raised in the manner shown by the physical signs.

Accordingly, an opening was made above the pubes, the tissues deep to the recti being found oedematous, and about three pints of inoffensive pus, showing no sign of admixture with blood, escaped. Mr. Leatham, our bacteriologist, found it to contain the pneumococcus in pure culture. Counter-openings were made far back in the loins, and a large tube was introduced into each opening. Examination from the suprapubic wound showed that the pelvic viscera lay beneath a layer of lymph, and a body like the uterus was fixed in front of the left half of the sacrum. Just above the navel some loose intestinal adhesions were felt, limiting the cavity in this direction.

The patient improved rapidly, temperature and pulse reaching normal on the 5th. After that, however, the evening temperature not uncommonly was 100°, and the pulse quick, out of proportion to this, 132 being once recorded. The lumbar drainage was abandoned in a week, the suprapubic drainage in a month (when she got up), and all wounds were healed in six weeks.

On November 16th I found the uterus fixed with a rounded swelling behind and on either side of cervix, not tender, and fixed.

On October 20th, 1903, this patient was readmitted for operation upon a small ventral hernia, which had formed where the drainage tube had lain in the suprapubic scar. Except that the swellings by the uterus were larger and filled much of the pelvis, and that the left was now easily felt above the pubes, the pelvic contents were as on November 16th, 1902. Were these swellings tubes, and had the actual onset of illness been due to infection from them of the pelvic peritoneum?

At the operation for cure of the hernia I found the swellings to be due to a large left and smaller right collection of clear red serous fluid, apparently in the broad ligaments, and beneath the peritoneum of the left pararectal fossa. I could find neither ovary. The normal right Fallopian tube arched out and back over the right cyst. The left I could not find, but in removing as much as possible of the wall of the cyst I cut across a structure on its posterior aspect near the uterus, which was almost certainly the Fallopian tube—undilated.

This further operation, therefore, threw no light upon the mode of infection of the peritoneum with the pneumococcus. The absence of all smell from the pus showed that no perforation of the appendix or other portion of the intestine had occurred. The absence of blood pigment negated a hæmatocele as the starting point. I believe I may say that neither tube contained pus. The accumulation of serous fluid beneath the pelvic peritoneum was probably a by-result of an acute purulent peritonitis.

THE INVASION STAGE OF MEASLES.

By EUSTACE SMITH, M.D., F.R.C.P.,
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DR. MARSDEN, in his remarks in the *BRITISH MEDICAL JOURNAL* of December 26th, 1903, p. 1031, upon the stage of invasion of measles deals with a subject of great interest. There must be few practitioners who at one time or another have not been puzzled by the freaks of the infectious fevers. A scarlatinous rash with a sore throat, but a normal temperature; or fever with sore throat, followed after an interval by peeling of the skin without previous eruption, are abnormalities to be met with from time to time.

As to measles, I have seen several cases in which the eruptive stage has been absent or unrecognizable. Some years ago I saw a boy of 14 who had been exposed to the infection of measles on February 24th, 25th, and 26th. On March 6th and 7th he did not seem quite the thing, but had no sign of catarrh and was not obviously feverish. On March 8th a few red spots were noticed on the face, behind the ears, and on the neck. He temperature then (in bed) was

99.6°. In the evening his temperature was 102°, and his eyes looked a little red. On March 9th the spots were more marked, he had begun to snuffle, his temperature was 103°, and the rash had spread to the chest and abdomen. On March 10th the rash was fully out and the catarrhal symptoms were fairly well marked. The temperature at 10 a.m. was 102.6°. The complaint ran a normal course. I have seen two other cases in which the bodily heat for the three days before the appearance of the rash was between 98° and 99° morning and evening, and even when the eruption came out did not rise above 101°. In these cases also the catarrhal symptoms developed very gradually.

Lately I have seen a young lady of 12, who became feverish on a Thursday with an evening temperature of 104.6°. Her face was flushed, but she seemed lively and looked well. She had had some headache over the eyes—she was subject to neuralgic headaches—but no cough or other catarrhal symptom. Her appetite was good and she said she was quite well. On the Friday her temperature in the morning was 103.2° and at 6 p.m. 104.5°, but there were no fresh symptoms and the child assured me that she felt quite well. On the Saturday the temperature in the morning was 100.2° and at 6 p.m. 104.8°; still there was no catarrh and a renewed examination of the patient could discover nothing abnormal. On the Sunday (the fourth day) the temperature in the morning was 100.2°; the eyes were a little weak and avoided the light but there was no cough or sore throat; the cheeks were flushed as before, but in addition a few red spots were noticed on the chin, and examination showed the chest, abdomen, and back to be covered with a well-marked measles rash. In the evening the temperature was 103° and there was more rash on the face. On the following day the temperature was normal; there were more spots on the face and the rash had spread to the legs. On the next day (the third of the rash, sixth of the illness) the temperature was still normal and the eruption had begun to fade.

I believe this to have been a true case of measles, although I had seen the patient in a normal attack of the disease only twelve months previously, and although, except for some weakness of the eyes, catarrhal symptoms were absent throughout and there was no feeling of illness. There was no tenderness or swelling of the superficial glands as in rubella. It is curious to note the contrast between the height of the temperature in the pre-eruptive stage, when the fever was the only symptom to be discovered, and the very mild and short course run by the complaint after the rash had appeared. It is possible that the first attack, which had occurred, as has been said, only twelve months previously, may have had something to do in moderating the intensity of the second.

Such abnormal cases are very perplexing. If they occurred during an epidemic one would, of course, bear the fact in mind when searching for the cause of the fever; but in the absence of other cases in the neighbourhood the nature of the attack must remain a mystery until revealed by the appearance of the eruption.

A CASE OF EXTREME HYPERTHYREXIA.

By W. C. WATSON GLENNY, L.R.C.S., L.R.C.P.I.,
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A FEW notes on this case may be of interest, as a temperature of 113.6° is very rare:

History.—Miss C., aged 19 years, stout and healthy-looking, had enjoyed good health until about eighteen months before this illness, when she had a fall on the back of her head. Shortly after this she began to have occasional headaches with vertigo, which were relieved when she had free hæmorrhage from her ears and occasionally from the nose also. The headaches had lately been recurring more frequently.

State on Examination.—On June 14th, 1903, I was sent for. I found the patient in bed, lying with her head slightly retracted and with boginess over the occiput. Her temperature was 98.4° and her pulse 84. She said her head felt as if it would burst, and complained of violent pain over the occiput, giddiness whenever she moved her head, and vomiting.

Progress.—I had her head shaved and a blister put over the occiput, and her ears syringed out with very hot water to encourage hæmorrhage as there had been none from the ears for over a week. She was given nutrient suppositories, as nothing had remained on her stomach for three days. The vomiting was cerebral in character.

For the next few days the pain in her head seemed to increase and she became delirious and violent. Leeches were put to the nape of her neck and she was given hypodermic injections of hyoscine (gr. $\frac{1}{160}$), with little or no benefit.

On June 20th as vomiting had ceased she was put on large doses of pot. iod. and pot. brom. which quietened her somewhat, and she also got inunction of Hg. She now said everything looked black to her, and on the following day she could not distinguish between light and darkness.

On June 23rd she started having epileptiform seizures and these continued for four days, and after these she had in turn, dysphagia, right facial paralysis, paralysis of right side of tongue, paralysis of left leg, rigidity of left arm and attacks of angina pectoris. Each of these lasted for a few days and gradually wore off.

Up to July 15th her temperature was normal, pulse 80 to 90, and urine free from albumen. At 8 a.m. on this date the temperature was 103.6°, at 10 a.m. normal, at 3 p.m. as she looked flushed, the temperature was taken when it was 107.6°, although she said she had not felt so well since she had taken to her bed. When I saw her that night the temperature was 99.6°, she said her head felt very tight, but otherwise well. I left quinine gr. x to be given should her temperature go up much, and gave directions to have the temperature taken hourly.

It was on the morning following (16th) that she developed the extraordinary temperature of 113.6°, during which time the nurse informs me she remained quite conscious, but complained of the cold so much she had to give her hot drinks. When I saw her later she said she felt well, only she was "awfully tired."

Result.—After this she remained fairly well for a week, when the pain in the occiput started again, with boginess over occiput, then delirium, convulsions, and partial paralysis in turn, each lasting for some days, and so, as it were, the cycle went on, temperature remaining normal or subnormal all the time till September 17th, when she developed pneumonia, and the temperature gradually rose till it was 110.6° an hour before she died, on September 21st. She remained blind all the time from the second week of her illness.

Unfortunately I could not obtain permission to make a necropsy. The course taken by the temperature during the hyperpyrexia in July is shown on the chart.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

EXTREME HYPERTHYREXIA.

HAVING read the notes on extreme hyperpyrexia in the BRITISH MEDICAL JOURNAL of July 25th, 1903, p. 193, and of August 1st, p. 248, the following notes, with chart, on a case of puerperal fever registering a higher temperature, with recovery, than any mentioned by Dr. Watson, may be of interest.