down system, abortion and labor, septic instruments, and continued cohabitation with an infected male. The vagina in adults is covered with thick stratified epithelium which resists the infection, making gonorrheal vaginitis a rather rare condition, although a secondary vaginitis may be caused by a virulent cervical discharge passing over the surface. I am not writing a treatise on the pathology of gonorrheal infection, however, but reporting the case from a therapeutic point of view only. I know of only a few cases in which the antigonococcic serum has been used in acute gonorrheal salpingitis, the latest case being that of Dr. Albert T. Tuttle in which he used the gonococcic vaccine. In old chronic cases, especially gonorrheal arthritis, it has been used with marked success.

Patient.—On February 28 I was called to see M. P., aged 20, white, single, who gave me the following history: On February 15 she had intercourse; five days later she experienced frequent and painful micturition, with a little burning in urethra and vulva. On February 22 the menses appeared and continued for three days; then they suddenly ceased for two days, then returned again and continued for one week. On February 26 the patient felt chilly and had severe pains in the head, left iliac fossa and over the pubic bone; with diarrhea, anorexia, nausea and vomiting.

Examination.—On March 5 I made a vaginal examination. The urethra showed a reddened and swollen mucous membrane; the meatus urinarius was red and congested and slightly everted. On pressing the urethra from the vaginal side I could express a few drops of whitish discharge; this I collected on a glass slide and examined for the gonococcus, which I found in large numbers. There was a vaginal discharge; the cervix was reddened and congested and painful to touch. Pain was present over both iliac fossæ but more on the left side; the left tube was enlarged.

Treatment and Course of Disease.—The patient was already in bed. I gave her massa hydrargyri gr. vii followed in the morning by magnesium sulphate. Ice-bag over left iliac fossa, and ordered a douche of tincture of iodin 3i to a quart of warm water three times a day. On March 12 I injected under aseptic conditions 2 c.c. of the antigonococcic serum. The fever went up in the afternoon after the injection. Again on March 15 and 17 respectively, I injected 2 c.c. more under the same conditions. After the second injection the temperature dropped and has remained down ever since. There was not the least discomfort after any of the injections. I discharged the patient, feeling perfectly well on March 29. She has been in my office three times since for observation and has had no pain, no discharge from either uterus or urethra.

The patient became infected just prior to her menstruation, and, in view of the bacteriologic findings, I can have no doubt as to the diagnosis. She was cured by 6 c.c. of the antigonococcic serum in conjunction with warm iodin vaginal douches. We should give a patient suffering from gonorrheal salpingitis at least three months before thinking of operation. Epididymitis does not require castration. Why then should all cases of gonorrheal salpingitis call for a salpingo-öophorectomy?

51 William Street.

A CASE OF PRIMARY MASTOID PERIOSTITIS

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Primary mastoid periostitis is so uncommon that the report of a case is of interest. Blake and Reik[1] say:

> The diseases of the mastoid, which are the most frequent and also the most important from a surgical point of view, are the acute congestions and inflammations secondary to similar processes in the middle ear. A careful study of the few cases of reported primary mastoid inflammations on record suggests, in the light of more recent experiences in this field of clinical investigation, the suspicion that there had been previous middle ear inflammations as the inceptor of a chronic quiescent mastoid disease which was later awakened to acute manifestations, while in others the implication of the mastoid cells possibly followed a superficial periostitis on the outer mastoid surface with pus formation denudation of bone and subsequent spontaneous perforation inward.

1. Blake and Reik: Surgical Pathology and Treatment of Diseases of the Ear, 1906.

History.—F. D., single, aged 20, was seen at the surgical clinic, Boston Dispensary, May 27, 1909. Father and mother, three sisters and one brother, living and well. Patient has had scarlet fever, whooping-cough, measles and tonsillitis. There is no family history of tuberculosis and no history of ear trouble known to patient.

Present Illness.—About one month previous to patient's visit to the dispensary a swelling was noticed posterior to the right ear; it disappeared, but returned, with redness, and with tenderness which was felt at the back of the neck also. Pain extending up to the vertex was present. There was no marked constitutional disturbance.

Examination.—This showed a slight, fairly well-nourished and well-developed girl. The teeth were good; the throat slightly reddened. There was pediculosis capitis. Nothing abnormal was found in the examination of the heart and lungs. There was a rather extensive psoriasis of long standing. Directly over the right mastoid process was a brawny, reddened, infiltrated area, the size of one-half the palm. Posteriorly there seemed to be indistinct fluctuation. The swelling was moderately tender on pressure. No marked cervical adenitis was present. The patient was sent to the aural department of the dispensary for an examination, and the report sent back that the ear was perfectly normal. The case was regarded as one of postauricular abscess, possibly of glandular origin (pediculosis).

Operation.—May 29 ether was given and a slightly curved incision made over the most tender part of the swelling, carried down quite deeply, but not to the bone; no pus found; free bleeding; gauze drain; dressing. There was some relief from pain following the incision. Next day swelling was the same; no pus; redressed with hot boric gauze and drain replaced. The patient did not do well; the cervical part of the swelling, instead of becoming smaller, increased. There was constitutional disturbance.

Second Operation.—The incision was enlarged and a deep cervical abscess opened. A rubber tube was introduced, apparently draining the abscess perfectly. There was now some improvement, but it was not satisfactory. It was noticed at the dressing that pressure on the mastoid increased the flow of pus from the cervical incision, and the patient's consent to further interference was obtained.

Third Operation.—The first part of the former incision was deepened and carried down to the mastoid process; bare bone was seen and felt, but no softened areas were detected suggesting necrosis of mastoid cells. The incision was drained and tube kept in the neck. The patient was seen at home and dressed there. From this time on convalescence was rapid, the cervical abscess drained well, gradually closed and the induration disappeared. The wound over the mastoid cleaned up quickly and covered with granulations, the drain here being soon removed. The patient was discharged well June 22.

Five months afterwards the patient's mother stated that the girl had been well, but that lately the scar had been somewhat reddened. The patient was given instructions to report at the clinic again, and reported in April, 1910. She stated that there had been no recurrence of trouble and that she was perfectly well.

The possibility of a mastoid periostitis, even though two ear examinations showed the ear perfectly normal, should have been thought of and the third operation, which cured the patient, done earlier. No specific history was obtained, but it would have been of interest to have had a Wassermann reaction done in this case.

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