V

CHRONIC CERVICITIS

By ALECK BOURNE, F.R.C.S.

DISCUSSION

DR. MORNA RAWLINS said she had often noticed the type of cervical erosion Dr. Aleck Bourne had described in virgins and had been puzzled by it. She was very interested in Dr. Aleck Bourne's explanation. Mr. Bourne had mentioned trichomonas vaginalis. At her clinic there had been cases teeming with the trichomonas, but with no symptoms whatever, and at the same time there were other cases giving a profuse discharge and having all the signs which were associated with trichomonas infection and yet very few organisms were to be found.

DR. W. N. MASCALL said that he had read about the condition known as congenital erosion of the cervix, but he had never seen such a case. He believed that the œstrin in the newborn child was very high, the child having been richly supplied from the mother. Might this condition be compared with erosion in virgins, where there was again a high acidity and high œstrin content?

For a long time past his colleague and he had been interested in the problem of primary gonococcal vaginitis. They were convinced that it did exist and that the posterior fornix was the site of election. There was a very close connection between the cervical canal and the posterior fornix so that there might be, even in the cultures from the cervix, a certain amount of contamination.

He had been investigating for Sir Robert Stanton Woods the question of arthritic joints and had treated a considerable number of non-gonococcal cervices, and as a result there had been a marked improvement in the joint condition. He had been interested to learn from Mr. Bourne that even in the cases which were thought to be highly infective, in the cervical canal cultures were taken and proved to be sterile. This opened up a wide field of investigation. Their tests had always been taken after
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the menstrual period. Perhaps more reliable tests would be found if they were taken in the inter-menstrual period.

Dr. C. L. M. MacElligot said that he had not quite gathered whether in the erosions of virgins Mr. Bourne had also failed to grow any pathogenic organisms.

Mr. Bourne replied that some of the virginal cases had grown the *Streptococcus faecalis* and even anaerobes.

Dr. MacElligot said that in several cases of cured gonococcal vulvo-vaginitis there was found a slight purulent vaginal discharge, and in one or two of them he could remember having been able to examine the cervix and always had found that the cervices showed a small erosion. He was convinced that these erosions were not necessarily the result of the original infection, but were due in some cases to masturbation. They might easily be the result of a digital infection.

Major F. C. Doble said that he could not help feeling that if the pH was intensely acid it was exactly what one would expect in the cervix. He suggested an association between the pH of the urine and the presence of erosion. It was easier to test the urine than any other fluid of the body.

Dr. Jean McLennan asked why there should be this high acidity in some cases. Was it only the local phenomenon, or was there an acid diathesis? In a series of 90 cases investigated on account of leucorrhoea dating from adolescence she had found that about 75 per cent. had signs or symptoms of rheumatism.

The Chairman (Dr. Margaret Rorke) described Mr. Bourne's address as a very teasing one. Why should Mr. Bourne leave them all dangling in mid-air, so to speak, with his series of questions which he could answer much better than they? With regard to erosion in virgins, she was particularly interested in that because she saw a certain number of that type of case in girls aged from fifteen to eighteen. These girls were non-infected, at least from the point of view of the worker in venereal disease. The question which posed itself to her was rather, in these unduly acid cases, why should there not be an erosion? Mr. Bourne no doubt had seen occasional cases occurring just at the beginning of menstruation where there was such an acid secretion that there had been an acute ulceration of the lower end of the vagina and the vulva. She had seen three or four cases
of that kind. In her clinic she also saw erosions associated with endocrine disturbances, because many patients came for non-venereal discharges, and a large number of these were cases of endocrine disturbances of one kind or another—excessive periods, unduly deficient periods, late periods, early periods, and so on. All these types seemed to run to profuse discharge, sometimes of an excoriating character, giving rise to so much discomfort that the patients came to the clinic for advice. The Streptococcus faecalis was seen not infrequently in the unmarried girl who had had intercourse perhaps under bad conditions, and the appearance and odour of the discharge associated with this infection made the patient feel that "a disease" must be present. She would like to reply to Mr. Bourne's second question by asking another. He had asked, "Why do erosions disappear at the menopause?" To which she would reply, "Do they?" She had erosions in some old ladies who were certainly not suffering from gonococcal infection.

Mr. Aleck Bourne, in reply, said that he would like to ask the members whether they were of opinion that the method which he had employed of destroying the whole thickness of the mucosa of the cervix by zinc chloride was a method which could be relied upon to cure a gonorrhoea which was stubborn and intractable. The slough was about 1/2 in. thick; the whole mucosa came out. If the organisms did live in these glands that method must have killed them. The gonococcus in the cervix was notoriously difficult to get rid of, but one could get rid of it by removing the mucosa by the chemical method. On examining the slough microscopically it proved to be a very thorough eradication.

In reply to Dr. Rawlins, he was doubtful as to the pathogenicity of the trichomonas. Some people said it was highly pathogenic and others declared the contrary. As to congenital erosions, he had always regarded these as nothing more than a cover immediately around the portio vaginalis, but he had never seen a case microscopically, except in very young infants. The oestrone content in babies was said to be high during the first three days after birth, and to be disappearing on the ninth day, with little or no return until puberty.

Dr. MacElligot suggested that infection by masturba-
tion was the cause of these infected erosions. That might
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be a very useful way of accounting for them, but he found it difficult to believe that an organism of the mild virulence of the non-haemolytic streptococcus of the anaerobic viridans type could live in the strongly acid medium of the vagina that the masturbating type of women was likely to show. Experimental work done on cultures in the vagina showed that the organisms were killed very quickly. Could the finger used in masturbation, contaminated by the very mildly virulent organisms, lead to an infection with organisms in the vagina which survived?

As to the reason for the highly acid vagina, his view had always been that the vaginal acidity varied roughly with the oestroné production of the ovaries. It was a very remarkable mechanism, that an internal secretion of the ovary could control the acidity of the vagina, and it did so, he believed, entirely by the deposition of glycogen in the epithelial cells which formed a pabulum for the growth of the lacto-bacillus. He thought that the acidity of the vagina was exogenous, a bacterial production, and not a function of the acid of the whole body.

Another speaker said that the gonococci had been seen in glands. He supposed this must have been the case, otherwise there would not be a general belief to that effect, but his experience in searching for organisms in tissues was that it was extremely easy to mistake débris for microbes. It was most difficult to identify the organisms in the tissues unless they were streptococcal chains, and the Gram-negative was especially difficult. To see B. coli or the gonococcus in the tissues was so difficult that he was very doubtful of conclusions based upon its supposed presence. Cellular débris looked very much like cocci.

The virginal erosion was found in the presence of high acidity, with high glycogen content in the vaginal epithelium. It might be said that the epithelium of the portio vaginalis was rather different from the rest of the structure. It might be, but one did not find the erosion affecting the whole of the portio, it was only around the os, and that was just the position where the vagina was least acid, because here it was bathed by the alkaline mucus. It was well known that if one wanted to get the real acidity of the vagina it must never be taken near the os.
Despite what Dr. Margaret Rorke had said, he thought there were comparatively few patients after the menopause who had erosions. The mistake was sometimes made of confusing erosions with ectropion and tears, but the real erosion mostly disappeared just at the time when the vagina was likely to be infected by the pathogenic organism.