

EPIDIDYMITIS DUE TO *Trichomonas vaginalis*

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In a recent analysis of 75 cases of non-gonococcal epididymitis, Fowler (personal communication) found no causative organism in 52 (69 per cent.). Mittemeyer, Lennox, and Borski (1966) found no cause in 54.4 per cent. of 610 cases.

This report concerns a case which might have fallen into the idiopathic category or might have been otherwise misdiagnosed.

Case Report

A 23-year-old West Indian was admitted to hospital with a history of urethral discharge and of swelling in the left scrotum of four days' duration. He gave a history of intercourse 5 days previously with a girl who had been his regular consort for 11 months. No other recent sexual exposure was admitted. He had had gonorrhoea on one occasion 3 years previously.

Examination There was a profuse purulent urethral discharge. No specimen of urine was available. He had a moderately enlarged slightly tender left epididymis. Gram-negative intracellular and extracellular diplococci were found in the urethral smear and results of culture and sugar fermentation tests subsequently proved these to be gonococci.

Progress and Diagnosis On the strength of the smear results a 5-day course of daily injections of 1.2 mega units aqueous procaine penicillin was ordered but the patient discharged himself from hospital 48 hours after admission, that is, some hours after receiving the second injection. When he was seen in the clinic 72 hours after the start of antibiotic therapy, the urethral discharge had become mucoid and no organisms were found by stained smear, wet film, or culture. However, the two-glass urine test showed a marked haze of pus with many threads in both glasses, and examination by darkfield microscopy of a wet preparation of the deposit of the centrifuged urine revealed *T. vaginalis*. This finding was confirmed by successful culture in Feinberg-Whittington medium. Examination by smear and

culture of another portion of this centrifuged urine deposit failed to reveal gonococci and culture of a fresh mid-stream specimen of urine was bacteriologically sterile.

Therapy A 7-day course of metronidazole 200 mg. three times a day was ordered and the penicillin therapy was continued.

After 4 days there was a very slight mucoid urethral discharge but the urine was macroscopically clear. Stained smears, wet films, and cultures of urethral material and of urine for gonococci and *T. vaginalis* gave negative results.

After a further 4 days the findings were unchanged and a mid-stream specimen of urine was reported as being normal. The chest X ray, haemoglobin, white cell count, and erythrocyte sedimentation rate were also normal. 3 weeks later the epididymitis had almost resolved and examination of the centrifuged urine showed no *T. vaginalis*.

Result When last seen, about 5 weeks after the initial visit, the patient was asymptomatic and had no abnormal signs apart from a fibrosed lower pole of the left epididymis. Unfortunately his transfer to one of H.M. Prisons prevented further follow-up.

Contact Tracing

His girl-friend was seen at a neighbouring clinic; she was found to have both gonorrhoea and trichomonal vaginitis.

Discussion

There is very little in the literature about epididymitis due to *T. vaginalis*. Liston and Lees (1940) recommended searches for the parasite in cases of epididymitis of unknown aetiology and described one case similar to the one presented here. Coutts, Vargas-Salazar, Silva-Inzunza, Olmedo, and Turteltaur (1955) claimed to have found the

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parasite in biopsy specimens from three cases of epididymitis, but these workers generally used staining methods for identification and the fact that they claimed to have found *T. vaginalis* by this method in 68 per cent. of 2,482 cases of non-gonococcal urethritis in men must cast doubt on their findings in epididymitis.

More recently, Amar (1967) has reported three cases of what he calls, with necessary caution, "probable *Trichomonas vaginalis* epididymitis".

Two such cases have been seen in our Department:

(1) The parasite was found in urethral scrapings from a man attending one week after completion of treatment for acute epididymitis associated with urethral gonorrhoea. The patient was otherwise without symptoms or signs of genitourinary infection. The presence of *T. vaginalis* was believed to be indicative of a carrier state and hence to be an incidental finding only.

(2) In the other case the only abnormal finding was epididymitis, the swelling being nearly the size of a cricket ball and of 4 weeks duration. Detailed investigations gave negative results except for the finding of *T. vaginalis* by darkground microscopy of the deposit of the centrifuged urine. Resolution of the epididymitis, which took 2 months, followed a week's course of metronidazole which was the only therapy. This case, we believe, falls into the "probable *T. vaginalis* epididymitis" category as described by Amar (*vide supra*).

Watt and Jennison (1960), who found that eighteen of the husbands of thirty women with chronic trichomonal vaginitis harboured the parasite, showed that the prostatic secretion was the most reliable and fruitful source, culture results being positive in fifteen cases. It is generally agreed that prostatic massage is contraindicated in cases of epididymitis and this may well account for the inability to establish the parasite as a cause. This probability is underlined by our own experience. In our last seven cases of epididymitis of unknown aetiology in which the regular consort was investigated, four of the women were found to have trichomonal vaginitis. As an alternative to prostatic massage we propose microscopy and cultural examination of fresh seminal ejaculate.

Summary and Conclusions

A case is presented in which epididymitis, though accompanied by gonorrhoea, appears, for the following reasons, to have been caused by *T. vaginalis*:

- (a) The epididymitis of 4 days' duration bore little resemblance to that usually seen as a complication of acute gonorrhoea.
- (b) At 72 hours after the start of penicillin therapy no evidence of gonorrhoea or of bacterial cystitis could be found. The urine nevertheless was heavily contaminated with pus and threads in both glasses of the two-glass urine test, and *T. vaginalis* was identified in the urine by both wet film and culture.
- (c) Clinical cure followed treatment with metronidazole and corresponded with disappearance of the parasite.

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Epididymite due au *Trichomonas vaginalis*

RÉSUMÉ

On présente le cas d'une épididymite qui, bien qu'accompagnée de gonococcie, apparaît comme dû au *T. vaginalis* pour les raisons suivantes:

- (a) Une épididymite qui dure 4 jours ressemble peu à celle que l'on voit comme complication d'une gonococcie aiguë.
- (b) 52 heures après le début du traitement par la pénicilline, il n'existait aucune évidence de gonococcie ni de cystite microbienne. Cependant, l'urine des deux verres, dans l'épreuve des verres, était lourdement chargée de pus et de filaments; le *T. vaginalis* y fut identifié, et à l'état frais, et par culture.
- (c) Un traitement par le métronidazole fut suivi de la guérison clinique et de la disparition du parasite.