

CASE REPORT

TESTICULAR ABSCESS CAUSED BY *SALMONELLA PARA-TYPHI*

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This case is the first report of a bacteriologically proven testicular abscess in a child caused by *Salmonella paratyphi 'A'* in Pakistan that clinically simulates a testicular tumour. The case also emphasises that a course of 2 weeks antibiotic is sufficient for testicular abscess if complete surgical debridement is done.

Keywords: *Salmonella paratyphi 'A'*, Testicular Abscess, Tumour

INTRODUCTION

Salmonella is a common infection involving intestine as well as extra-intestinal organs; however it rarely involves the genitalia. Review of literature shows only a few cases of bacteriologically proven testicular abscesses, most of them due to non-typhoidal salmonellae.¹ We recently treated a child with testicular abscess caused by *Salmonella paratyphi 'A'* presenting clinically simulating a testicular tumour. We are reporting this to emphasise the difficulties in diagnosing such unusual presentation of testicular abscess.

CASE REPORT

A 5 year old boy brought in OPD with right testicular swelling for last two weeks. It had gradually enlarged in size. It was associated with mild testicular discomfort. He had no lower urinary tract symptoms of infection or obstruction. He had no fever, chills, nausea, vomiting or loss of appetite. He had good oral intake and normal bowel habits.

On physical examination the child was afebrile and non-toxic. His scrotal examination revealed fully developed scrotum with both testes descendent. Right testicle was swollen and cystic; however, it was neither warm nor tender.

Laboratory workup showed a white blood count of 15,300/mm³ (79% Neutrophils). Urine analysis revealed pH of 6.0, and 1–2 WBC/PHF. However there were no bacteria or RBC, and leukocytes esterase and nitrite were negative. Urine culture did not show any bacterial growth after 72 hours. Ultrasonography of the testes interpreted as showing a solid hypo-echoic lesion measuring 17×15 mm with multiple calcification and peripheral vascularity, occupying mid and lower pole of right testis. Findings were likely suggestive of teratoma. Alpha fetoprotein was 0.82 IU/ml while B-hCG was <1.2 mIU/ml.

The boy was planned for right side orchidectomy through inguinal incision. Per-operatively while delivering testis, purulent fluid came out. There was a large, thick loculated abscess cavity along the inferior and middle pole of the testis. The abscess was drained and cavity washed thoroughly. Frozen section was negative for malignancy. It showed acute on

chronic inflammation (Figure-1A–D). Pus was taken for culture and sensitivity that grew *Salmonella paratyphi 'A'*. Inguinal wound closed primarily. Child was successfully treated for 14 days with cefixime (16 mg/Kg/day). Follow-up colour Doppler after 6 weeks showed normal vascularity in the testis.

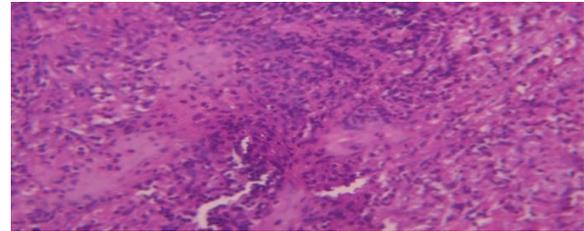


Figure-1A

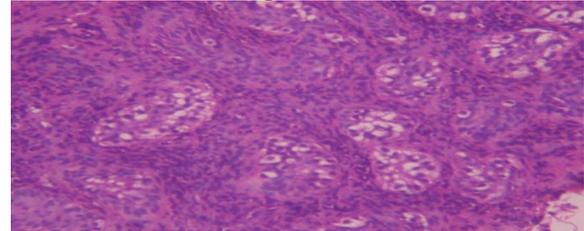


Figure-1B

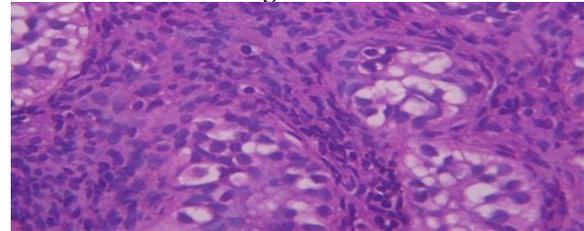


Figure-1C

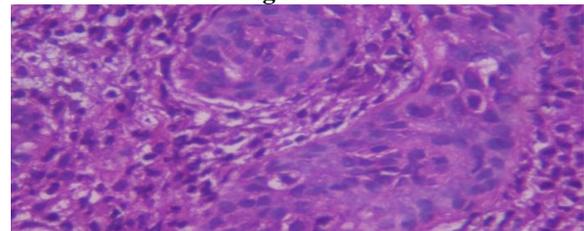


Figure-1D

Figure-1: Histopathology of frozen section of testicular tissue

Seminiferous tubules are surrounded by marked acute on chronic inflammation, however, it is negative for malignancy.

DISCUSSION

Although Pakistan is an endemic area for typhoid fever but testicular involvement is very rare. Previously reported all cases of testicular involvement by salmonella were clinically symptomatic.²⁻⁴ In our case, first the child denied any history of acute scrotum or any episode of urinary tract infection or gastroenteritis. Second the child was clinically afebrile and non-toxic and local examination didn't reveal any inflammatory sign. Even ultrasound misled to diagnosis of tumour.

It is important to note that in the literature prolonged course of antibiotic have been used^{1,5} while we treated successfully with antibiotic for 2 weeks only. This may be because we had completely removed any nidus of infection which is main cause of recurrent infection.^{6,7}

REFERENCES

1. Conhn JL, Bartlett JI, Corey GR. Extra-intestinal manifestation of Salmonella infection. *Medicine* 1987;66:349-88.
2. Svenungsson B. Suppurative epididymo-orchitis due to salmonella enteritidis. *J Infect* 1984;8:64-6.
3. Unyyed K, Korman SH, Uromen A. Scrotal abscess with bacteremia caused by Salmonella group D after ritual circumcision. *Pediatr Infect Dis J* 1990;9:65-6.
4. Kostalas G, Thomas E. Orchitis and testicular abscess formation as complication of Salmonella Virchow gastroenteritis. *Med J Aust* 1973;60:769-70.
5. Huth RG, Goldstein E. Testicular abscess caused by Salmonella typhi. *South Med J* 1991;84(9):1156-7.
6. Gerridzen RG, Ooi TC, Mc Kendry JBR. Salmonella epididymitis with recurrent septicemia in a diabetic patient. *Urology* 1981;17:172-4.
7. Greene JB, Adler M, Holzman RS. Salmonella enteritidis genitourinary tract infection in a homosexual man. *J Urol* 1982;128:1046-7.

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