

Eggshell calcification in a case of longstanding hydrocele

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Accepted 11 December 2019

DESCRIPTION

An 80-year-old man was being evaluated for voiding luts with haematuria. On physical examination, he was found to have grossly enlarged right testis which was stony hard on palpation with normal left testis (figure 1). On radiological evaluation, he was found to have grossly enlarged right hemiscrotum with peripheral calcifications measuring (36×76×86mm) in right scrotal sac (figure 2).

A hydrocele is an abnormal fluid collection within the tunica vaginalis of the scrotum. Calcification of hydrocele sac is a rare complication.¹ In 1935, published case by Kickham CJE 'Calcified hydrocele of the tunica vaginalis testis: case report' was the first reported case of calcified hydrocele sac. He found intraoperatively 15 cc milky fluid in hydrocele sac and calcified wall of hydrocele sac.

According to 2019 WHO update of lymphatic filariasis, the global baseline estimate of people affected by lymphatic filariasis was 25 million men with hydrocele and over 15 million people with lymphoedema.² Lymphatic filariasis is infection with the filarial worms, *Wuchereria bancrofti*, *Brugia malayi* or *B timori*. These parasites are transmitted to humans through the bite of an infected mosquito and develop into adult worms in the lymphatic vessels, causing severe



Figure 1 Physical examination shows stony hard enlarged right testis.



Figure 2 Contrast enhanced computed tomography (CECT) showing peripheral calcifications within right scrotal sac.

damage and swelling (lymphoedema). Elephantiasis—painful, disfiguring swelling of the legs and genital organs—is a classic sign of late-stage disease.³

Filariasis is endemic in India and contributes about 40% of the total global burden.⁴ Recurring attacks of epididymo-orchitis resulting from filariasis may lead to hydrocele formation. After the early episodes, the swelling around the testis disappears completely, but over the years the tunica vaginalis becomes thickened and there is progressive enlargement of the hydrocele. Rarely, longstanding hydrocele undergoes calcification over its surface.^{5 6} In endemic areas, differentiation of filarial from idiopathic hydrocele is difficult.⁷ Discovery of a thick, fibrous tunica, especially with cholesterol or calcium deposits, should suggest a diagnosis of filariasis.⁷ Tunical calcification is very rare in idiopathic hydrocele.

The infection can be treated with drugs. However, chronic conditions may not be curable by antifilarial drugs and require other measures, for example, surgery for hydrocele, care of the skin and exercise to increase lymphatic drainage in lymphoedema.

Annual treatment of all individuals at risk (individuals living in endemic areas) with recommended

Learning points

- ▶ Eggshell calcification of scrotum is a rare entity, it indicates a state of chronic infection within the hydrocele sac.
- ▶ In endemic areas, filariasis is the most common cause of hydrocele.
- ▶ Discovery of a thick, fibrous tunica, especially with cholesterol or calcium deposits, should suggest a diagnosis of filariasis.

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To cite: Goel A, Kumar P, Jain M, et al. *BMJ Case Rep* 2020;**13**:e232827. doi:10.1136/bcr-2019-232827

antifilarial drugs combination of either diethyl-carbamazine citrate (DEC) and albendazole or ivermectin and albendazole; or the regular use of DEC fortified salt can prevent occurrence of new infection and disease.³

Contributors PK: conception and conduct, acquisition of data. AG: analysis and interpretation, reporting. MJ: literature review. GS: critical review.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient consent for publication Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

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