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# Hydrocele – are we treating the cause or the effect?

**Hemantha Sudasinghe<sup>1</sup>, Sudhira Herath<sup>2</sup>**

*<sup>1</sup>Registrar in Surgery, <sup>2</sup>Consultant Surgeon*

*General Surgical Unit, Karapitiya Teaching Hospital, Galle.*

## **Introduction**

Among the general public, the awareness of filariasis as one of the aetiological factors responsible for hydroceles is poor [1]. Even the clinicians rarely attempt to find out the aetiology of hydroceles when the patients are treated. Since lymphatic obstruction can cause secondary hydrocele, and filariasis is a common cause of lymphatic obstruction in the tropics, it may be useful to investigate or to treat empirically for filariasis, when adult patients present with hydroceles.

## **Case report**

A 35 year old patient who complained of bilateral hydrocoeles was vague about the duration of the illness. In addition to bilateral hydroceles, the left testis was enlarged with a cystic lump on its upper pole, while the right testis was normal in size. There were no palpable para-aortic lymph nodes. Patient did not have an early morning cough or

any limb swelling. The hydrocele on the right side was recurrent and it has been associated with an inguinal hernia. Inguinal herniorrhaphy has been done 3 years ago while the hydrocelectomy on the same side had been performed one year ago.

An ultrasound scan should testes, normal in size and echo-texture. A large cyst measuring 4.5 cm in diameter was found in the head of the left epididymis. Multiple cystic translucencies were seen in the tissues surrounding the right testis with suspicion of a varicocele or a mass lesion arising in the right epididymis. Abdominal scan was normal. The levels of  $\beta$ -hCG and  $\alpha$ -fetoprotein in the serum were normal.

Six days later, the patient developed severe bilateral testicular pain and tenderness with high fever (101 °F). Urine analysis was normal and the patient was started on levofloxacin on suspicion of an infected hydrocele. Since the response to antibiotic was poor, it was decided that the left sided scrotal swelling be explored. An inguinal incision was used and the sac of the hydrocele was opened to find straw-coloured fluid, which

was drained out. The spermatic cord and the soft tissues surrounding the testes and the epididymis were severely oedematous with dilated vessels and whitish streaking (Fig 1). Since the tissues surrounding the testis and the epididymis were not healthy, orchidectomy with high ligation of the spermatic cord was performed.



Figure 1

When opened, milky fluid in a sac of the upper part of the epididymis was found. The testis beneath the oedematous tunica albuginea looked normal. The histological examination of the specimen revealed a normal testis, an epididymis containing a nematode and dilated lymphatic channels with neutrophil infiltration. Post-operative ultrasound scan and CT scan of the abdomen to exclude any retroperitoneal mass lesion causing lymphatic obstruction were negative. Subsequently the patient was treated with diethyl-carbamazine-citrate to eradicate any remaining nematodes.

## Discussion

Filarial hydrocoeles and chylocoeles account for up to 80% of hydrocoeles in tropical countries where the parasite is endemic. Filarial hydrocoeles follow repeated attacks of filarial epididymo-orchitis. They vary in size and may develop slowly or very rapidly. Occasionally the fluid contains liquid fat, which is rich in cholesterol. This is due to rupture of a lymphatic varix with discharge of chyle into the hydrocele. Adult *Wuchereria bancroftii* worms have been found in the epididymis removed at operation or at necropsy. In long-standing chylocoeles, there are dense adhesions between the scrotum and its contents. Filarial elephantiasis supervenes in a small number of cases. The treatment is by rest and aspiration. The more usual chronic cases are treated by excision of the sac [2].

## Reference

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