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RESTORATION OF QUALITY OF LIFE WITH GIANT HYDROCELE: A KENYAN CASE
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SUMMARY

A hydrocoele is a fluid collection between the layers of tunica vaginalis that surrounds the testis. It is a relatively common urological problem that may be due to inflammation, trauma, intra-scrotal malignancy or idiopathic pathology. The giant hydrocoele is, however, a rare encounter. It is defined as one that is bigger than the patient's head or whose fluid content is in excess of one litre. I present a giant hydrocoele in a 45-year-old Kenyan that had 24 litres of fluid and whose scrotal reconstruction required excision of skin weighing 2.1kg. A review of literature and how it relates to this case is discussed.

INTRODUCTION

A hydrocoele is a collection of fluid between the tunica vaginalis surrounding the testes due to either increased production or reduced resorption of the fluid (1, 2, 3). They are common urological problems that may signify inflammation, trauma, intra-scrotal malignancy or idiopathic aetiology (4, 5).

A giant hydrocoele is rare and is defined as one that is bigger than the patient's head or whose fluid content is one litre or more (3, 6, 7). It is often considered an evidence of neglect as a result of poverty and fear of surgery (3).

Giant hydrocoeles may cause difficulty with mobility, psychological stigma, difficult micturition and social problems such as divorce, sexual disability and infertility attributed to arrest of spermatogenesis (8, 9). When bloody, it is advised that one thinks of malignant mesothelioma of tunica vaginalis, paratesticular rhabdomyosarcoma and testicular tumour even though repeated tapping of the hydrocoele may have a similar presentation that is best distinguished by cytology and measure of hyaluronic acid in the hydrocoele fluid to rule out malignancy (10).

Exceedingly large giant hydrocoeles require reconstructive surgery of the redundant scrotal skin, also referred to as scrotoplasty (11). A meticulous approach will avoid recurrence and yield a cosmetic effect that would reverse the adverse psychosexual effects of giant hydrocoeles (12).

CASE REPORT

SHO, a 45-year-old male, presented to a surgical camp at Msambweni County Referral Hospital in Kenya's South Coast. His chief complaint was a progressive bilateral painless enlargement of his scrota for the preceding 13 years. There was no history of trauma, chronic cough, past sexually transmitted disease, abdominal distension or weight loss. He had no co-morbid conditions, history of hospital admission or surgery.

Before his scrotal swelling worsened, he was a casual labourer of no fixed income. He then became a stay-home husband before his wife abandoned him for another man. Due to the prevalent traditional beliefs, he had not sought surgical intervention till a friend convinced and brought him for the camp. By then, he had difficulties with walking and his urination would flow onto the mass, giving him challenges on hygiene and staying dry.

When examined, he was found to be a lean man in his midlife. The vital signs were normal. The main finding was grossly enlarged scrota reaching below the knees as shown in figure 1:

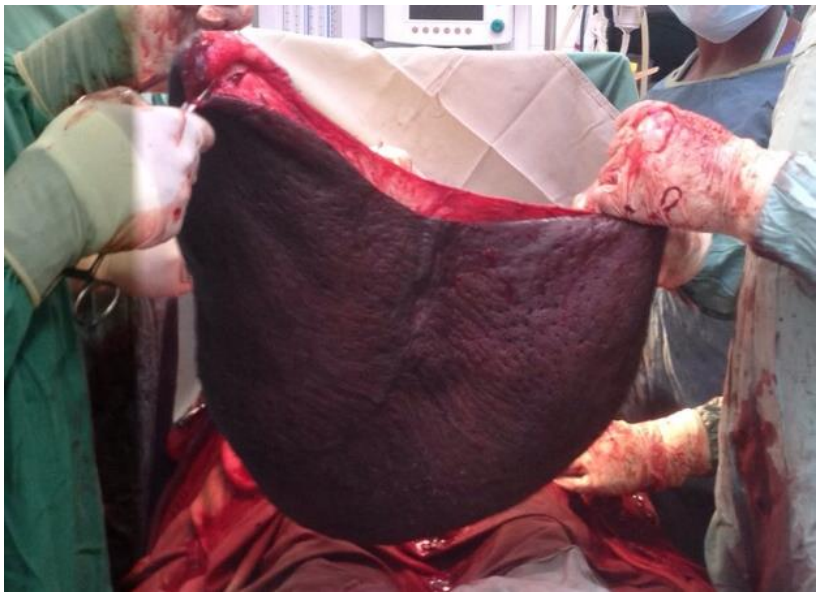
Figure 1: The giant Hydrocoeles with the patient standing

The penile shaft had been completely buried in the mass with the patient passing urine through a tunnel on the dorsal aspect of the scrotal mass best appreciated when the patient is seated as in figure 2:

Figure 2: The hydrocoeles with the patient seated.

The skin had no evidence of lymphoedema, pressure points or ulcerations. The patient had laboratory work up done with a view to doing hydrocoelectomy and scrotal reconstruction. His full haemogram and renal function test were normal. Blood grouping and cross-matching was done, and two units of whole blood secured. During the surgery, a total of 24 litres of hydrocoele fluid was collected before a 2.1 kg of thickened scrotal skin was resected. The excised skin is show in figure 3:

Figure 3: The 2.1kg resected scrotal skin



There was no intra-abdominal extension through processus vaginalis and no evidence of inguinal hernia. The tunica vaginalis was then trimmed and a Jaboulay's inversion method employed to complete the hydrocoelcetomy. The remaining scrotal skin was then fashioned to adequately accommodate the testes with care to maintain symmetry and cosmesis. Blood loss was estimated at 650ml. The patient fared on well postoperatively and did not require the anticipated transfusion. A review at 8 months showed normal external genitalia as shown in figure 4:

Figure 4: The patient's genitalia after 8 months

SHO was that time a happy man with a healthy social life, having married another woman and resumed his economic activities.

DISCUSSION

Hydrocoeles can be classified as primary or secondary with the primary being idiopathic and the secondary ones being as a result of disruption of the balance between production and absorption of fluid in the tunica vaginalis (8). They are usually painless unless associated with complications such as infection or traumatic episodes. The ordinary commonly encountered hydrocoeles are common in urological practice and easy to appreciate with a good understanding of embryology, anatomy and physiology (1, 8) of the peritoneum and the inguinoscrotal link to the scrotum (2).

Giant hydrocoeles, on the other hand, are rare and usually due to poverty, neglect, cultural attachment to unhealthy beliefs and fear of surgery in the developing world (3). This particular case report is exemplary in size and amount of fluid, surgical intervention and outcome since most of those reported have had less than 10 litres of fluid. It might be due to the extent of neglect over the 13 years of no interventions.

The patient with giant hydrocoeles usually has discomfort, impaired mobility and psychosocial distress. Unmarried men are unable to find spouses to marry while the married ones stand the risk of low self-esteem, sexual dysfunctions, infertility, loss of financial stability and divorce (8, 9). This particular one had the double tragedy of losing his economic power and his wife before a friend persuaded him to seek surgical treatment. This can be attributed to the psychosocial trauma, social stigma, altered morphology (sometimes with complete burying of the penis) and a complete turnaround of the quality of life for the worse. The infertility is due to direct pressure on the testes as well as impaired spermatogenesis with a 40% loss of sperm quality with every 1º C rise in the intra-scrotal temperature (8).

Hydrocoelcetomy requires a good understanding of the underlying embryological, anatomical and physiological basis to avoid postoperative complications like haematocoeles and recurrences (11). There is no room for nonsurgical interventions in giant hydrocoeles. The massive ones of this kind will require scrotoplasty to get rid of the redundant skin and achieve cosmesis as was evident postoperatively in this case report. Properly done, surgical treatment of giant hydrocoeles has the capacity to restore the patients to their original, if not better, selves as exemplified here.

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