



## Hydrocele: Side Incidence and Age Group Affected

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### Abstract

**Background:** Hydrocele is collection of fluid along the path of testicular descent which usually presents as a painless, cystic scrotal mass leading to an increase in the volume of the scrotal contents.

**Aim:** The aim of this study is to analyse the side incidence and age groups affected in hydrocele.

**Materials and Methods:** A total of 110 patients who were diagnosed clinically and sonologically as having long standing hydrocele of 6 months and more were included in the study and were offered surgery in the form of eversion of sac. Patients with acute onset hydrocele/haematocele and associated with trauma were not included in the study. None of these patients on preoperative ultrasound or on surgical exploration was diagnosed with a more serious underlying pathology.

**Results:** Out of 110 patients who underwent eversion of sac for hydrocele, 60 (54.54%) patients had Right sided hydrocele and 46 (41.81%) patients had Left sided hydrocele. 4 (3.63%) patients had bilateral hydrocele. The most common age group affected was the age bracket of 31-40 years which comprised of 38 (34.54%) patients, followed by age group between 21-30 years, 41-50 years and 51- 60 years each of the group affecting 20 (18.18%) patients.

**Conclusion:** Right sided hydrocele is more common as compared to left sided hydrocele. This study showed that 60 (54.54%) patients had Right sided hydrocele as compared to 46 (41.81%) patients who had Left sided hydrocele. The age group of 31-40 years was the most commonly affected age group affected which consisted of 34.54% of patients. This was followed closely by age group of 21-30 years, 41-50 years and 51-60 years which affected 18.18% patients each.

**Keywords:** Hydrocele, side incidence, age group affected.

### Introduction

A hydrocele is a fluid collection that may occur anywhere along the path of testicular descent and usually presents as a painless, cystic scrotal mass leading to an increase in the volume of the scrotal contents. Depending on the volume of fluid, hydrocele can be disfiguring and even incapacitating. The hydrocele may be communicating, with fluid of peritoneal origin, or non-communicating, where fluid arises from the mesothelial lining of the tunica vaginalis. Physical

examination reveals a smooth and non tender scrotal mass that is clear upon transillumination. hydroceles can be associated with testicular neoplasms in post pubertal males, testicular examination should be performed. If the size of the hydrocele precludes adequate testicular examination, scrotal ultrasonography is advised. Chronic hydrocele has multiple etiologies, but irrespective of the cause, surgery is the standard form of treatment and this can be done using different surgical techniques.

**Aim**

The aim of this study is to analyse the side incidence and age groups affected in hydrocele.

**Materials and Methods**

A total of 110 patients who reported to the surgical out-patient department over a period of 3 years from May 2016 to May 2019 and were diagnosed clinically and sonologically as having hydrocele of long standing duration of 6 months and more were included in the study. All the patients were offered surgery in the form of Eversion of sac. Transillumination was used as an important screening component of physical examination of patients presenting with scrotal

masses which required a bright focal light source in a dark room.

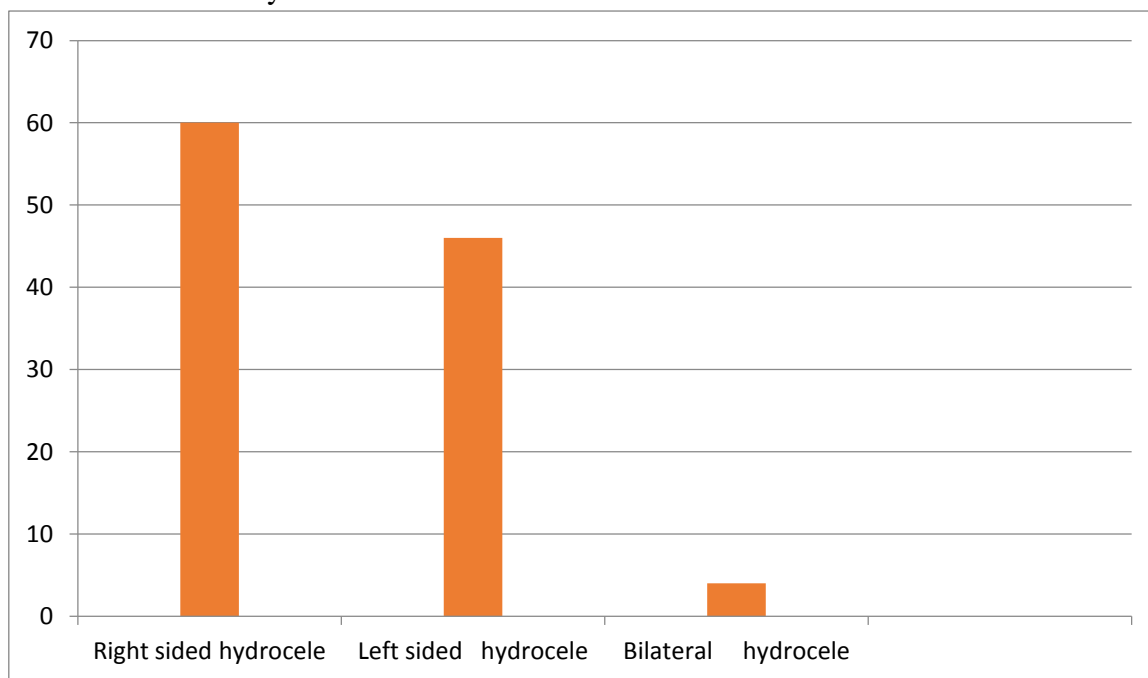
Patients with acute onset hydrocele/haematocele and associated with trauma were not included in the study.

None of these patients on preoperative ultrasound or on surgical exploration was diagnosed with a more serious underlying pathology.

**Results**

Out of 110 patients who underwent eversion of sac for hydrocele, 60 (54.54%) patients had Right sided hydrocele and 46 (41.81%) patients had Left sided hydrocele. 4 (3.63%) patients had bilateral hydrocele.

**Chart 1: Side incidence of Hydrocele**



The most common age group affected was the age bracket of 31-40 years which comprised of 38 (34.54%) patients, followed by age group between 21-30 years, 41-50 years and 51- 60 years each of the group affecting 20 (18.18%) patients.

**Table 1: Age group affected**

Age group	Number of patients	Percentage
11-20 years	4	3.63%
21-30 years	20	18.18%
31-40 years	38	34.54%
41-50 years	8	7.27%
51-60 years	20	18.18%
61-70 years	20	18.18%

**Discussion**

Hydrocele is defined as an abnormal collection of serous fluid in the potential space between the parietal and visceral layers of the tunica vaginalis. The pathogenesis of idiopathic hydrocele is thought to be an imbalance in the normal process of fluid production and reabsorption. The diagnosis is usually clinical. Scrotal ultrasonography is mandatory in non palpable testicles to rule out an associated testicular mass requiring inguinal exploration.

Adult hydrocele is a very common urological disease in most of the sub-Saharan African countries, with a reported incidence of up to 20–28% in some lymphatic filariasis endemic communities.<sup>1</sup> Diagnosis is usually clinical. Scrotal ultrasound is recommended in adult men with hydrocele as part of the diagnostic work-up<sup>2</sup> to rule out testicular cancer and testicular torsion.

The most definitive treatment for hydrocele is surgery; however, many symptomatic sub-Saharan African patients live with this condition for years without surgery often due to financial constraints and lack of access to medical care. This situation unfortunately is common to most developing countries.<sup>3</sup>

The distribution of the incidence of hydrocele in this study showed its peak in the age group between 31-40 years as opposed to two peaks at ages 20–29 years and later 50 years and above, with a steady increase in incidence after the age of 50 years in another study by Okorie CO et al.<sup>4</sup> Incidence of bilateral hydrocele seemed to be very low between 41- 50 years of age similar to the study by Okorie CO et al.<sup>4</sup> Unilateral hydrocele seemed to occur more frequently on the right side as compared to the left. Thomas *et al.* in their study also found scrotal hydrocele to be more common on the right.<sup>5</sup>

Management of Hydrocele: No intervention is necessary unless the hydrocele reaches a critical size that leads to awkwardness or pain in walking, in which case drainage can be done in general practice settings. Treatment for recurrent hydrocele includes aspiration followed by sclerotherapy (using phenol,<sup>6</sup> tetracycline,<sup>7</sup> or sodium tetracylsulfate<sup>8</sup> or hydrocoelectomy.<sup>9</sup> Hydrocoelectomy, although more invasive and costly, has been shown to have higher success rates, improved outcomes and patient satisfaction as compared with other form of sclerotherapy.<sup>10</sup>

### Conclusion

Right sided hydrocele is more common as compared to left sided hydrocele. This study

showed that 60 (54.54%) patients had Right sided hydrocele as compared to 46 (41.81%) patients who had Left sided hydrocele.

The age group of 31-40 years was the most commonly affected age group affected which consisted of 34.54% of patients. This was followed closely by age group of 21-30 years, 41-50 years and 51-60 years which affected 18.18% patients each.

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