Original Article

New Indian Journal of Surgery
Volume 7 Number 2, May - August 2016
DOI: https://dx.doi.org/10.21088/nijs.0976.4747.7216.7

Post Operative Complications in Hydrocele: Clinical Study

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Abstract

Introduction: "Primary vaginal hydrocele is defined as abnormal accumulation of serous fluid in tunica vaginalis." It is one of commonest disease occurring worldwide. The common complications observed during the surgery of hydrocele are bleeding, injury to the cord structures and epididymis, torsion of the testis due to faulty positioning during surgery. There are many numbers of types of operations performed for hydrocele, which needs comparision to select best of them. *Methodology:* A total of 60 patients were selected after applying the various inclusion and exclusion criteria. The patients were subjected to various modalities of management like Lord's plication, Jaboulay's procedure, Radical excision of sac and tapping with sclerotherapy depending on the presentation. *Results:* Eight of ten patients were cured of their hydrocele. Among the eight patients who were cured 4 patients had only one instillation. 1 patient developed a recurrent hydrocele 2 wks following primary treatment while 3 patients developed recurrent hydrocele 2, 3 & 6 mths after primary treatment. *Conclusion:* There was no incidence of hematoma after Lord's placation.

Keywords: Hydrocele; Lord Plication; Complications.

Introduction

Hydrocele is known to occur in man since time immemorial. Indian surgeons have reported it as early as 5th century BC. Hydrocele has been described in ancient Indian surgery by Sushrutha (6th century BC), who stated that any swelling in the body is due to thridhosha (three faults), viz. vatha, pitta and kaffa [1].

Hydrocele in the absence of a definite cause is known as Primary or Idiopathic Hydrocele. Secondary hydrocele is an effusion in the tunica vaginalis that accompanies certain affection of the epididymis or the testis [2].

It occurs in men of all age groups, more frequently above 21 years. Suggestive symptoms are few. The fluid accumulates slowly painlessly and eventually a dragging sensation is felt in the groin. It may involve only one side or both sides, being slightly more frequent on the right side. It appears as a pea shaped welling larger below than above and tapering sharply at the cord. When it is of large dimension it is often sausage shaped. It cannot be pushed into the inguinal canal unless it is of a bilocular type. The upper pole can be palpated at or just below the external inguinal ring. In small hydroceles the testis is surrounded by a lax fluid swelling and is capable of enormous distention. In large ones the tunica vaginalis may be so tensely distended that the testis cannot be identified, though pressure from behind may elicit testicular sensation. The scrotal skin is tense and shiny [3].

In a very large hydrocele especially when bilateral, the penis may be withdrawn into the distended scrotal skin and its position is masked by a puckered dimple. The penis appears to be shortened as the hydrocele enlarges and extends upwards into the scrotum as opposed to carcinoma of the testis in which the penis appears larger. Thus an enlarged tense scrotal sac that gives a sense of fluctuation and cannot be reduced is a characteristic sign of a hydrocele

Methodology

A clinical study was carried out at a tertiary care

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centre to find the post operative complications in the management of hydrocele. A total of 60 patients were selected after applying the various inclusion and exclusion criteria. The patients were subjected to various modalities of management like Lord's plication, Jaboulay's procedure, Radical excision of sac and tapping with sclerotherapy depending on the presentation. Patients were followed up for 6 months for complication

The data was collected in semi structured questionnaire and entered in Microsoft excel. The data was analysed using SPSS

Results

Among the 60 patients 50 patients underwent open surgery while aspiration Sclerotherapy was performed in 10 patients. The 50 patients undergoing open surgery were randomly selected to undergo either Lord's plication or Jaboulay's procedure or Radical excision of the sac

In the present study Lord's placation was performed on 30 patients of which 6 had bilateral hydrocele, Jaboulay's procedure was performed on 10 patients of which 1 had bilateral hydrocele and Radical excision of sac was performed in 10 patients of which 2 patients had bilateral hydrocele. Eight of ten patients were cured of their hydrocele. Among the eight patients who were cured 4 patients had only one instillation. 1 patient developed a recurrent hydrocele 2 wks following primary treatment while 3 patients developed recurrent hydrocele 2, 3 & 6 mths after primary treatment. The procedure was repeated for the second time and there was no recurrence in the following 6 months. The remaining 2 of the total 10 patients also developed recurrence but refused the injection second time as they were satisfied with the result 2 patients experienced pain immediately after injection. There were no complications such as skin edema, Hematoma or infection which were common among those treated by open surgery.

Table 1: Shows the post-operative complications in different procedures

Complications	Lord's Plication (n=30)	Jaboulay's procedure (n=10)	Radical excision of sac (n=10)
Pain	10	10	10
Hematoma		1	1
Skin edema	2	5	6
Infection		1	1
Disruption of wound			2
Time taken for Complete healing			
1 wk	13	2	1
2 wks	17	8	9
3 wks			
Recurrence			2

Table 2: Comparison of Incidence of Hematoma, Skin Edema and Infection[4]

Operation (%)	Edema (%)		Hematoma (%)		Infection (%)	
	Present study	Rodriguez et al study	Present study	Rodriguez et al study	Present study	Rodriguez et al study
Lord's plication	7	15	0	5	3	3
Jaboulay's procedure	50	91	10	22	10	14
Radical excision of sac	60	76	10	20	10	8

Table 3: Comparative table of hematoma

Author	Year	Journal	Lord's placation		Radical excision/ Eversion of sac	
			No. of cases	Hematoma	No. of cases	Hematoma
Lord[5]	1964	BJS	22	-	-	-
Efran et al[6]	1967	SGO	29	1	30	9
Dahl et al[7]	1972	Arch. Surg	25	1	23	6
Rai et al[8]	1973	IJS	50	-	20	15
Campbell[9]	1927	SGO	-	-	502	12
Present study	2010-2012		30	-	20	2

Discussion

The following tables shows the comparison of incidence of Hematoma, skin edema and infection between the present study with that of the Rodriguez et al study [4] in percentage.

Conclusion

Lord Procedure is an easy procedure and consumes less time if it is done through a small incision and as the sac is not stripped from the surrounding tissue, oozing is minimized and post operative hematoma never occurred in this series so are the other complications.

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