



A COMPARATIVE STUDY BETWEEN INGUINAL APPROACH OF HYDROCELE AND SCROTAL APPROACH OF HYDROCELE

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ABSTRACT

Introduction: Hydrocele is one of the commonly encountered cases in Surgical OPD in Govt Kilpauk Medical college hospital. **Aim of the Study:** The study was conducted to compare between the advantages and disadvantages of Inguinal approach and Scrotal approach in hydrocele surgeries.

Materials and Methods: A randomised controlled study was done in a tertiary care hospital between September 2018 and September 2019 in two groups. Group A underwent hydrocele surgery by INGUINAL approach and group B underwent hydrocele surgery by SCROTAL approach. **Results:** Both groups were compared and analysed. Statistically significant results were attained. The post-operative stay, post-operative pain, discharge from wound were less in Inguinal approach than Scrotal approach. Early return to work is observed with inguinal approach. Duration of surgery was more with Inguinal approach than Scrotal approach. **Conclusion:** Inguinal approach was found to be superior to scrotal approach in Hydrocele surgeries.

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INTRODUCTION

General surgeons perform hydrocele surgeries day to day. The rate of wound healing, time to return of activity, post operative pain is very important in post operative patients. Surgeries are performed on various patients admitted in ward for hydrocele. This study is to know whether the hydrocelectomy by inguinal or scrotal approach, which has minimal complication, less post operative morbidity, short hospital stay, early return of activity and which will be the conventional approach (Jain, Manish, Vaginal Hydrocele, 2018; Bilal Firat Alp, 2014).

METHODS

The study includes a sample size of 100 patients in Govt Kilpauk Medical college hospital between SEPTEMBER 2018 to SEPTEMBER 2019.

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Patients operated for elective surgical procedures who were followed up in post operative wards. The patients were followed up on day 2,3,4,5 until the date of discharge and a careful inspection of the surgical wound site was done to look for any redness, bruising, warmth over and around the wound and sutured site and development of any serous or bloody discharge or pus from the operated site. Patients' complaints were recorded as per questionnaire and patients were asked to answer the questionnaire as per proforma.

All patients were given IV antibiotics and analgesics. Daily cleaning and dressing was done. In case of infection, pus culture or wound culture was sent. All the patients included in the study sample were followed up and the time taken to return to their daily normal routine activity was noted. This statistical study finally shows how many patients in the study population in each group were having normal healing, early return to work, post operative pain, how many patients developed bruising, development of hemoserous discharge or pus, induration, hematoma formation from the

wound site, and finally the statistics of the Number of patients in each group was studied .

RESULTS

In this study, A comparative study between inguinal approach of hydrocele and scrotal approach of hydrocele, with a study population of 100 patients in a tertiary care hospital with 50 inguinal and 50 scrotal approach patients, several significant factors in wound healing, return of activity, post operative pain were assessed and its statistical significance were applied by chi square test and P value.

Post operative stay duration: More for scrotal approach compared to inguinal approach (Table 1).

Post operative pain: More for scrotal approach than with inguinal approach (Table 2).

Return of activity: Early return of activity for inguinal approach than for scrotal approach.

Wound discharge: Less in inguinal approach compared to scrotal approach (Table 3).

Duration of surgery: More duration for inguinal approach compared to scrotal approach. All the above mentioned factors have statistically significant P value.

Table 1. Comparison based on the duration of stay

| Independent Samples t test | | | | | | |
|----------------------------|---------|----|--------|----------------|-----------------|---------|
| | Group | N | Mean | Std. Deviation | Std. Error Mean | t Value |
| Group | Group A | 50 | 4.1600 | .99714 | .14102 | 8.448** |
| | Group B | 50 | 5.9800 | 1.15157 | .16286 | |

**p<0.001

Table 2. Comparison of Pain between two groups

| Independent t test | | | | | | |
|--------------------|---------|----|--------|----------------|-----------------|----------|
| | Group | N | Mean | Std. Deviation | Std. Error Mean | Test |
| Pain | Group A | 50 | 2.5200 | .50467 | .07137 | 25.694** |
| | Group B | 50 | 6.0200 | .82040 | .11602 | |

Table 3. Comparison of Wound infection (Seroma/Discharge)

| | Yes | | No | | Total | |
|---------|-----|------|----|------|-------|------|
| | No | % | No | % | No | % |
| Group A | 10 | 30% | 40 | 60% | 50 | 50% |
| Group B | 23 | 70% | 27 | 40% | 50 | 50% |
| Total | 33 | 100% | 67 | 100% | 100 | 100% |

Pearson Chi square =7.644** p<0.001

DISCUSSION

Hydrocele, a common chronic condition in men, causes physical, psychological, social, and economic distress. Hydroceles are generally painless. However, if pain is present, it may interfere with daily activities, and large hydroceles can even cause patients to have difficulty with sexual intercourse. Indications for treating a hydrocele include pain, the cosmetic appearance of the scrotum, or the patient’s preference. The conservative management of a hydrocele includes observation, aspiration, and sclerotherapy (Lord’s procedure versus sclerotherapy in treatment of hydroceles). Of these

conservative methods, sclerotherapy has been most favored, and it may be indicated in patients who have a small to moderate hydrocele, who are unwilling to undergo surgery, or who are poor surgical candidates (Hydrocelectomy through Inguinal Approach in Adults Article, 2019). The conventional surgery for an idiopathic hydrocele is excision and subsequent eversion of the sac, and this procedure remains the most popular surgical method. Other techniques for treating a hydrocele in adults are the plication technique and internal drainage of the hydrocele (Jain, Manish). The usual approach for hydrocelectomy in the adult is the scrotal route. The most troublesome problem in this method is a very discomforting scrotal swelling, which creates much difficulty for the patient and the managing surgeon.

This problem can be avoided by performing hydrocelectomy using the inguinal approach in the adult. Apart from almost eliminating this postoperative problem of scrotal discomfort from marked swelling, this method enables inspection, discovery of testicular malignancy, and taking safe and appropriate actions against it. It also enables easy inspection, discovery, and performance of appropriate actions on any coexisting inguinal hernia. Both groups were compared and analysed. Statistically significant results were attained. The post-operative stay, post-operative pain, discharge from wound were less in Inguinal approach than Scrotal approach. Early return to work is observed with inguinal approach. Duration of surgery was more with Inguinal approach than Scrotal approach. Hence, in conclusion, Inguinal approach was found to be superior to Scrotal approach in Hydrocele surgeries.

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