

## Pony Tail Bandage for Prevention of Scrotal Edema Post-Inguinoscrotal Surgeries



### Medical Science

**KEYWORDS :** Pony tail bandage, Scrotal edema, Inguino scrotal surgeries

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### ABSTRACT

*Scrotal edema is accumulation of fluid in the interstitial spaces in subcutaneous tissue of scrotum. One of the important causes of that occurring is post operatively in patients of inguino-scrotal surgeries. Various methods-cumbersome and ugly looking- have been used over the years for the management of scrotal edema post operatively. We here present a novel, cosmetically improved and effective method of bandaging to prevent formation of scrotal edema- an avoidable complication. A prospective study was done on 200 patients following inguino-scrotal surgeries where a ponytail bandage was applied over the scrotal skin and satisfactory results were found on follow up in terms of cellulitis, edema and patient comfort.*

### Introduction:

Inguinal and scrotal surgeries, chiefly hernia and hydrocele surgeries, launch an insult to the local tissues, which results in micro-vascular bleeding, oozing of fluid in the subcutaneous tissues due to broken capillaries and inflammation mediated egress of intravascular fluid in the interstitial compartment. This leads to swelling on gross examination. A chief factor that contributes to the development of scrotal edema is gravity[1], which deposits the collected fluid in the subcutaneous compartment in the scrotum following groin surgeries. The laxity of skin, loosely hanging subcutaneous tissue and large amount of available space only serve help this process[7]. Hence, edema develops. This, when exposed to infection, either from wound site or from the unhygienic scrotal-perineal area, leads to cellulitis-inflammation of skin and subcutaneous tissue. When this cellulitis expands, it may form a scrotal abscess, necrotizing fasciitis or Fournier's gangrene[6]. Thus, in prevention lies the best chance of an uneventful post-operative period following simple groin surgeries. A variety of methods have been used for accomplishing elevation of scrotum which prevents accumulation of fluid[3]. Conventional scrotal supporting bandage is useful yet creates a cosmetic unsightliness and discomfort for the patient, besides loosening and falling off once the patient is mobilized. Commercially available scrotal supports are slightly better as they hold off and have a firmer grip. However, they become dirty and are more prone to infection. Traditional "langots" are often used in smaller set ups to suit this purpose, however, over reliance on patient to use it often leads to non-compliance[4]. Hence, a smaller pony tail bandage is a newer, simpler, surer modification, bringing in all the positive aspects of various traditional methods and being cosmetically much more favourable.

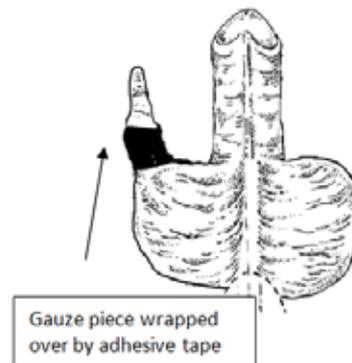
### Materials & Method:

#### Selection criteria:

- 200 patients randomly undergoing inguino-scrotal surgeries in Smt. SCL general hospital from April 2010 to April 2012 in all age groups.

#### Exclusion criteria:

- Patients with previous scrotal surgeries or malignancies of testis were excluded.



**Figure:1 Pony-tail dressing with traction over the scrotal skin**

The skin over the scrotum is pinched, bringing both the testicles down and the skin remaining above the level of testis. It is held firmly upwards and a simple gauze piece is placed over it. A simple adhesive tape is wrapped around it which holds up the traction over the skin. The skin over the scrotum is pinched in such a way that about 2/3rd to 3/4th skin remains above the dressing. The diameter of the gauze and the tape is



**Figure:2 Application of pony-tail dressing**

around 2-4 cm. this, combined with no need to wrap the bandage around the waist to provide traction gives more comfort to the patient and lesser post operative morbidity.

**Observation:**

- It was found that the incidence of scrotal edema was 1% with the pony-tail bandage group.
- The incidence of lower abdominal and scrotal pain (other than the wound site) was 1% in pony-tail group.
- 98% Patients were comfortable and compliant with the ponytail bandage.
- The incidence of cellulitis was 0% in ponytail group.

**Discussion:**

The above observations show adequately the superiority of pony tail bandage over the traditional scrotal support bandages, though the figures might get diluted in a larger sample size. However, there is no denying the fact that pony tail bandage is a far more cosmetic, comfortable and reliable mode of prevention of post operative scrotal edema.

- They give a firmer grip due to a smaller surface area and more traction due to lesser distance between the fulcrum and the arm of the lever.
- Their application is far easier for doctors and maintaining them in place does not require a lot of effort from the patients.
- They obliterate the space between the skin and dartos without hampering the scrotal circulation and do not involve or

elevate the testis. This is important since in young patients, it prevents testicular exposure to higher temperature of the inguinal canal[5].

- The localization of fluid in the smaller space protruding out from prevents it from going any deeper or spreading.
- Pony tail bandage can also be used for the management of scrotal edema following various pathological conditions like post operative cellulitis, epididymo-orchitis[2].
- It relaxes the tense skin over the scrotum in infective conditions and is highly advantageous in cases of edema of non-lymphatic variety.

Post-operative status	Total atients	% of patients
Scrotal edema	2	1%
Pain	2	1%
Compliance	196	98%
Cellulitis	0	0%

**Conclusion:**

Pony tail bandage is an easier method of preventing scrotal edema following inguino-scrotal surgeries which has a high success rate, lesser scrotal edema and serves the purpose of cosmesis and function that it is meant for, with better patient compliance.

**REFERENCE**

1. Bailey and Love: A short practice of surgery, 25th edition, Chapter 38 "the testis and the scrotum", 1074-1077 | 2. Campbell's Urology, 9th edition, Chapter 24 "the scrotum", 944-948 | 3. Rados N, Trski D, Rados J, Keros P. The biochemical aspect of a testis hydrocele, Acta Med Croatica 1996;50(1): 33-36 | 4. A practical guide to operative surgery, S.Das, 5th edition, Chapter 54 "The testis and the scrotum", 1017-1022 | 5. Farquharson's textbook of operative surgery, 9th edition, Chapter 19 "surgeries of urogenital tract", 504-509; chapter 16 "abdominal and inguinal hernias", 464-467 | 6. Apko E.E. A giant hydrocele: an epitome of neglect: Afr Health Sci, 2005;5(4):343-4 | 7. Jahnson S, Johannsson J E. results of window operation in a vaginal hydrocele. Urology 1993;41(1):27-28 |