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A Case Study on Scrotal Abscess: An Ayurvedic Approach.

Rahul Saini[1], Rajesh Kumar Gupta[2] Om Prakash Nain[3] Ram Karan Saini[4]
1,3,4-PG Scholar, PG Department of Shalya Tantra, DSRRAU Jodhpur, Rajasthan.
2-Professor and HOD, PG Department of Shalya Tantra, DSRRAU Jodhpur, Rajasthan.

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Corresponding author-
Rahul Saini, PG Scholar, PG Department of Shalya Tantra, DSRRAU Jodhpur, Rajasthan.

Email: - dr.pk2121@gmail.com

ABSTRACT:

An abscess that is either superficial or intra scrotal is known as a scrotal abscess (see illustration below). Infected hair follicles, infections from scrotal lacerations, or small scrotal procedures are the causes of the superficial scrotal abscess. An internal pus collection in the scrotum is referred to as a scrotal abscess. The skin pouch that houses the testicles is known as the scrotum. There are numerous potential causes of this illness. It could result from a bacterial infection in the urethra or bladder that is left untreated. Scrotum infection is a possibility. In addition, sexually transmitted illnesses may be the cause of the syndrome (STDs). Chlamydia and gonorrhea are a couple of STD examples. A supportive tumor that affects the outermost layers of the scrotal wall and is surrounded by erythema is known as a scrotal abscess. A small pustule or papule may typically enlarge over time with increased pain, indurations, or fluctuance as part of the history. Fever and constitutional symptoms are typically absent.

Keywords; Scrotal Abscess, Tumour, Ayurveda

INTRODUCTION

It is generally recognized that abscesses can occur after an appendectomy, especially when perforation is present. The majority of problems are infectious[1]. The most frequent sources of infection include wounds, pelvic abscesses, and intra abdominal abscess development. Following acute perforated appendicitis, the scrotal abscess is extremely uncommon. An internal pus collection in the scrotum is referred to as a scrotal abscess. The skin pouch that houses the testicles is known as the scrotum. There are numerous potential causes of this illness. It could result from a bacterial infection in the urethra or bladder that is left untreated. Scrotum infection is a possibility[2]. In addition, sexually transmitted illnesses may be the cause of the syndrome (STDs). Chlamydia and gonorrhea are a couple of STD examples. Numerous things can lead to scrotal abscesses. These can include bacterial infections and inflamed hair follicles. In some circumstances, the scrotum is infected when pus from patients with appendicitis drains there. The same holds with a ruptured testicular abscess[3]. Infection in the scrotum can also be brought on by specific drugs. Examples include those employed in the management of specific severe arrhythmias. As previously noted, illnesses like tuberculosis and STDs might also be to blame for the condition. Draining the abscess is a necessary part of treating the illness. To remove the pus, the surgeon will create an incision and access the cavities. This will enable the injured area to recover. Under general anesthesia , surgical exploration will be used to treat any dead tissues (which frequently appear when therapy is put off). It is necessary to eliminate all dead tissue. To avoid infection, patients are given broad-

spectrum antibiotics. After surgery, it's recommended to stay in bed. It's vital to raise the scrotum. Patients can do this by putting a towel under it. Until they are fully recovered, patients are also cautioned against engaging in sexual activity. Additionally, they are instructed to follow up with a doctor a week or two following surgery to make sure their wound is healing properly. Additionally, the surgical site is examined for any indications of problems[4].

CASE PRESENTATION-

A 52-year-old Indian male has been transferred to our Shalya (Surgery) Department with a history of scrotal swelling, tenderness over the testis since one month associated with Constipation, budging during defecation, Burning sensation, pain in per rectal. This patient developed an infection of scrotum, which led to subcutaneous abscess. Clinical Findings Scrotum was edematous over the left side. On lifting the scrotum, the pain increased (Prehn's Sign). Left testis was lying horizontal. On local examination swelling over Scrotum ill defined pus formation with irregular margins. All Vitals including Blood pressure, heart rate, respiratory rate are normal.. The case was diagnosed as "Scrotal abscess with bleeding piles". He was successfully treated with scrotal incision, drainage under local anesthesia with Ayurvedic medication (oral as well local application) *Ayurvedic* antibiotics and pain killers. Early detection and intervention provide opportunities to improve outcome of this drainage of scrotal abscess. After incision and drainage patient gets complete relief.

1.1 **Clinical Finding-**

On clinical examination, the left inguinal and scrotal area was swollen, tender, and painful; the skin was eroded and characterized by subcutaneous emphysema with crepitus. Scrotal abscess was diagnosed. Both testes and their epididymites did not show abnormal findings. Digital rectal examination showed a small, benign prostate, with mild pain at palpation. Supposedly an indwelling catheter was positioned in the bladder.

1.2 **Diagnostic Assessment**-

CONTRAST MRI FISTULOGRAM REVEALS:- Fibrotic ill-defined enhancing track with possible internal opening at 12'0 clock at the level of apex of prostate below the pelvic diaphragm curving vertically downward in interpunction space for a distance of 3.4cm, pierces the external sphincter at 12'0 clock and then acutely curves forward running parallel to the corpora spongiosa of the penis running anterioriy for a distance of 7.6cm horizontally and anteriorly ending into multiple branches into the root of the scrotum. One blind ending enhancing branch runs anteriorly and ends deep to the right paramedian root of penis under the spongiosum measuring ~ 2.2cm**.** Another enhancing branch runs anteriorly and shows fibrotic opening into the left paramedian posterior margin of the scrotum measuring ~ 4.1cm. Another branch further traverses anteriorly for a distance of 6.5cm and open into left paramedian scrotal raphe. There is diffuse soft tissue edema, streakiness and enhancement suggesting cellulitis of the scrotal skin. Bilateral testes and epididymis show normal course and caliber. Minimal hydrocele fluid is seen in left scrotal sac.

Laboratory findings were as follows:-white cell count of 10140/ml, hemoglobin of 15g/dL, PLT of 224/uL serum creatinine of 0.6 mg/dL, and VDRL, HBsAg, HIV card test are negative BT of 2 minutes 2 second, CT 5 minutes 2 second Random blood glucose of 145.4mg/dL.

1.3. Therapeutic Intervention-

Preparation-

Anesthesia-:

The incision and drainage of a superficial scrotal abscess can often be performed by infiltrating the area with an anesthetic and intravenous narcotic use. The surgical treatment of an intrascrotal abscess often requires Local anesthesia. Patients with suspected Fournier gangrene (necrotizing fasciitis) are often explored under local anesthesia given the severity of the illness and the potential extent of the disease. These patients require aggressive resuscitation and institution of broad-spectrum antibiotics that cover both aerobic and anaerobic organisms.

Equipment-:

The instrumentation needed for the treatment of an intrascrotal abscess is that commonly used for any surgical exploration. The wound cavity should be left open and packed. In those individuals in whom Fournier gangrene (necrotizing fasciitis) is suspect, a more extensive set-up is needed due to the potential for widespread involvement of the disease. A cystoscope should be available to rule out urethral pathology as the source of the infection as well as instrumentation for sigmoidoscopy/anoscopy to rule out a anorectal source of the disease.

Positioning-: In most cases, the patient positioning is in a supine position with the scrotum shaved and the genitalia prepped and draped. If Fournier gangrene (necrotizing

fasciitis) is suspected, then a lithotomy position is more useful because it allows access to the lower abdominal wall, the genitalia, and the perianal region.

Technique

Overview- The scrotum is a continuation of the abdominal wall. The layers include the scrotal skin, the dartos layer (a continuation of Colles fascia), the external spermatic fascia (a continuation of the external oblique aponeurosis), the cremasteric muscle and fascia (a continuation of the internal oblique muscle), the internal spermatic fascia (a continuation of the transversalis fascia), and the tunica vaginalis. The scrotal contents consist of the testis, epididymis, and the spermatic cord structures. Thus, the location of the abscess, superficial versus intrascrotal, dictates the extent of the exploration.

Finally a Mercier tip catheter 12 Ch was inserted in the bladder. Scrotal incision was performed and a Penrose drain was placed in the abscess. Approximately 200 ml of pus was evacuated from the abscess cavity. In order to prevent the risk of sepsis, we used Gentamycin and amikacin BD IV. We washed the wound with physiological saline containing povidone iodine every day. Based on the manifested symptoms and clinical findings the case was diagnosed as Abscess of the lower part of right and left testis. Intervention. Patient in supine position, local anesthesia was given. Vertical incision was given over thelower part of right and left scrotum lateral to the median raphe. Incision was deepened and the tunica vaginalis was exposed. Tunica vaginalis of the lower part of right and left testis was carefully incised to visualize the testis. A sterile wet warm cloth was used to cover the testis so as to revive it. Wound was irrigated and dortos was closed in running layer followed by closure of the skin with ethylon. Scrotal support was provided. Oral *Ayurvedic* antibiotics and analgesics and *Ayurvedic* medication local as well orall were prescribed by the consultant Surgon.

Medications[5,6,7]

List-Ayurvedic medication- Table 1

List-Supportive medication-Table 2

Post-Procedure

After the initial surgical exploration, the scrotal wound packing is changed on a regular basis to prevent accumulation of purulent material and to debride devitalized tissue. Keeping the wound open allows it to granulate from the base, preventing a closed space from forming that may become secondarily infected. Postoperative Ayurvedic medication.

Complications-

Incomplete drainage or debridement of devitalized tissue may lead to persistence/extension of the abscess. Failure to identify the source of the infection, such as an underlying urethral stricture, may lead to recurrence. Fournier gangrene (necrotizing fasciitis) may lead to significant tissue loss requiring subsequent skin grafting for scrotal, abdominal and perineal skin loss.

But in current case after incision and drainage and medication there is no any known medical complication was found.

Follow-Up and Outcomes-

Since then the patient has presented regularly in our department. Drain was removed on the 7th day A manual medical examination was performed after treatment no evidence of periurethral leakage. After the surgical procedure wound healing process noted very fast without any complication due to effects of ayurvedic medication oral as well as local. After 15 days both scrotum are completely cure without any recurrence of puss formation. The catheter was removed. He has not shown signs of recurrence in a follow-up period.

RESULT

Post-operative period was uneventful. Patient was discharged on post-operative day. Pain and swelling had completely subsided. Patient was asked to continue scrotal support for 7 more days.

DISCUSSION

It is a matter of great surprise and revelation that there exists not only anecdotal evidences rather a complete Ayurvedic science of surgery, treatise of which although not supposed to be complete but is available even today and unanimously accepted to be approximately 3000 years old in the form of '*Sushrut Samhita*' comprising of 120 chapters, 1120 conditions, 121 surgical instruments, 300 surgical procedures including plastic surgery, cataract, repair of ear lobes, urinary stones, perineal lithotomy and removal of dead foetus etc. To even greater surprise, the basic principles and instruments remain the same as in modern surgery even today.

CONCLUSION

Scrotal abscess is common, now days. First choice of treatment is the surgery only. But, Ayurveda medicinal

Management has shown a remarkable recovery. .It may open a new path to the clinicians and researchers for finding the medicinal option for the treatment. Collectively, it can be concluded that the Ayurveda management may help to overcome on this issue.

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ORCID

Rahul Saini , https://orcid.org/ 0009-0005-7762-7252

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Figure no. 01- Fig demonstration of Scrotum.

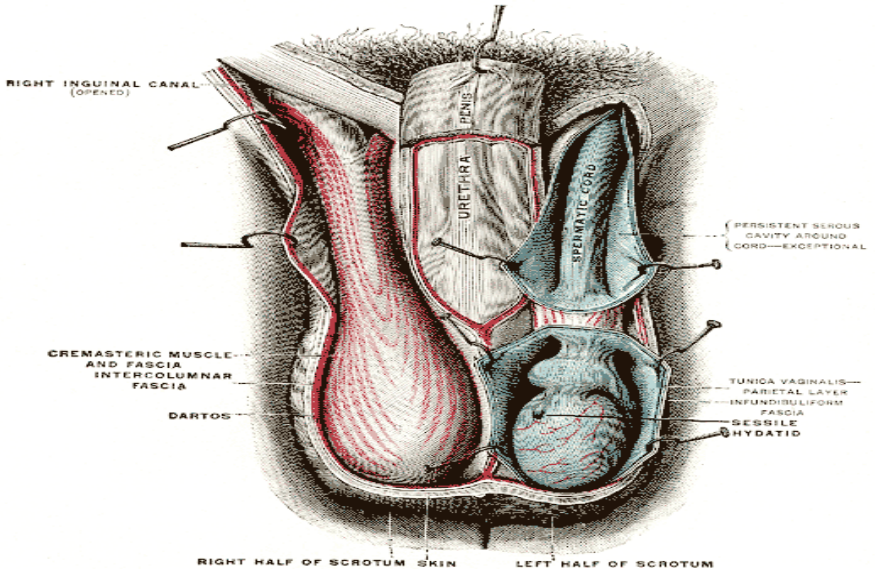
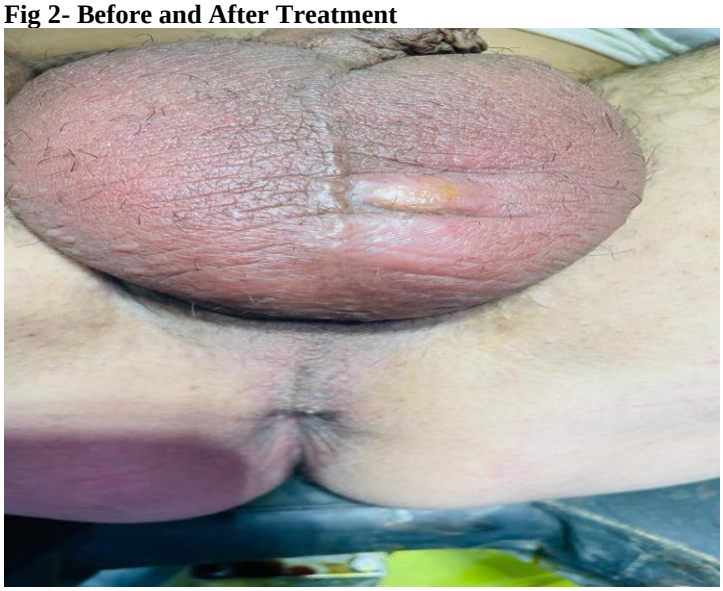
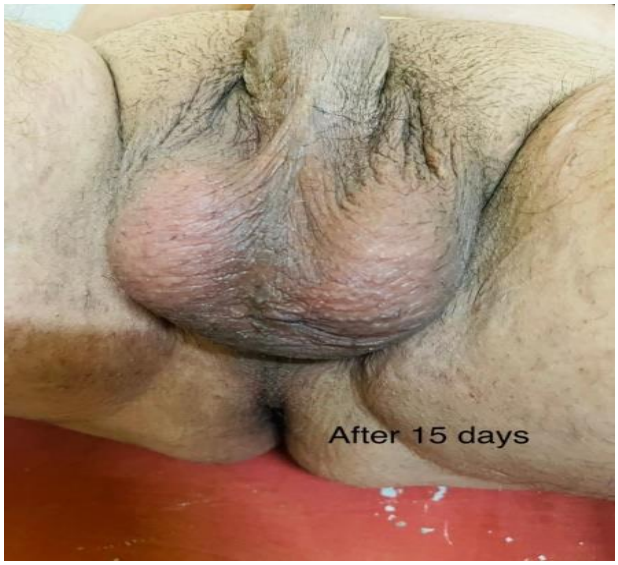


Fig 2- Before and After Treatment





Before Treatment **After Treatment.**

Table 1 List-Ayurvedic medication-

S.No.	Name of drug	Dose	Route	Duration
1	*Panchvalkal kwath*	50ml	L/A	15 Days
2	*Kankayan vati*	125mg BD	oral	15 Days
3	*Nagkeshar* *Shubhra bhasm*	3gm BD 125mgBD	L/A	15 Days
4	*Hingvastak* *Godanti bhasm*	3gm BD 125mg BD	oral	15 Days
5	*Triphaka ghruta*	5ml BD	oral	15 Days
6	*Shatdhauta ghruta*	5ml TDS	L/A	15 Days
7	*Jatayadi ghruta*	5ml BD	L/A	15 Days
8	*Panchtiktaghruta ghugulu*	250mg BD	oral	15 Days

Table 2 List-Supportive medication-

S.No.	Name of drug	Dose	Route	Duration
1.	*Jaimangal Ras*	250mg BD	Oral	7 Days
2.	*Gandhak Rasayan*	250mg TDS	Oral	7 Days