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EFFECT OF PANCHAVALKAL KWATH DHAWAN FOR THE FORMATION OF GRANULATION TISSUE IN FOURNIER GANGRENE – A CASE STUDY

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ABSTRACT

Fournier gangrene is a type of necrotizing fasciitis or gangrene affecting the external genitalia and/or perineum. It commonly occurs in older men, but it can also occur in women and children. It is more likely to occur in diabetics, alcoholics, or those who are immune compromised. In present paper the application of *Panchavalkal kwatha* in the management of Fournier gangrene is evaluated. A 40 years old male patient was admitted in BHU Shalya Tantra IPD, with the complaints of huge perineal swelling and enlarge scrotum associated with pain following fever since 15 days. The condition was diagnosed as *Kotha* (Fournier gangrene). *Bhedana* (incision) and subsequently *Chedana karma* (surgical debridement) of the scrotal gangrenous tissues was done. And this was followed by Shodhana karma (cleaning and dressing) with *Panchavalkal kwath*. After 20 days of dressing, red granulation tissues were noted. After the complete treatment patient was clinically normal. There was no side effect or recurrence or complication was found in follow up period.

Keywords: Fournier gangrene, *Kotha, Panchavalkal kwath*

INTRODUCTION

Fournier Gangrene is an uncommon and nasty condition of infective origin that is characterised by sudden scrotal inflammation with rapid onset of gangrene leading to exposure of scrotal content. An obvious cause is absent in over half the cases it can arises following minor injuries or procedure in the perineal area .[1] It is idiopathic gangrene of scrotum. It is vascular gangrene of infective origin cause by haemolytic streptococci, micro aerophilous streptococci, staphylococci, E coli, Cl.welchii, Bacteroides fragilis.[2]

In Ayurvedic science *Kotha* can be correlated with Fournier's Gangrene. *Kotha* can be defined as devitalisation and necrosis along with pus formation.[3] It is dictate as dead of tissue along with pus formation. Many patients have concurrent illnesses that diminish their defences most notably in diabetes mellitus and alcoholism. Condition is common in old age; very fast Spreading cellulitis of scrotal skin extending to scrotal skin and anterior abdominal wall. Sometimes toxicity is to severe that they may go for renal failure and other complication. There is mixed infection of aerobic and anaerobic bacteria in a ful-

minating inflammation of the subcutaneous tissue, which result in Obliterated arteritis of the arteriole to the scrotal skin which in turn result in gangrene. The condition can spread rapidly to involve the fascia and skin of the penis, perineum and abdominal wall. Sometimes the condition may worsen rapidly leading to death 25% mortality. *Acharya Sushrut* described *Chedana* karma in the management of *Kotha*[4].

CASE REPORT:

A 40 year male patient come to SSH BHU Varanasi, with the chief complains of huge swelling and pain along with pus discharge from scrotum and perineal region since 10 days. He has given the history of fever since 5 days and already had taken treatment from general practitioner near his home and doctor has performed Incision and Drainage of swelling near his anus. Later on swelling has extended to the scrotum and has increase drastically. As the condition worsen day by day and one of his friends directed him to SSH BHU Varanasi.

He had no past history of any disease or infirmity, he complains occasional bleeding per rectum and mass coming out during defecation for 3 year.no surgical intervention earlier.

He had loss of appetite, diet was mixed, bowel habit regular and micturition normal. He was taking cannabis (Bhang) since 10 year. Patient was examined systemically and local examination was performed thoroughly. Systemic examination was normal.

Local examination: On local examination a huge scrotal swelling which was more intense on left side, extending into perineal region with tenderness along with pus discharge was found and local temperature was raised. On inspection no local lymph node was enlarge. Patient as admitted in Sushruta ward SSH BHU VARANASI. With IPD no1825 on bed no 18.

INVESTIGATION: Routine investigation viz Hb% TLC DLC ESR RBS HIV HBSag HCV VDRL, LFT, RFT, ECG CXR-PA view URIN R/M done at the time of admission. All were within normal limit. His TLC count was 20700 cells /cumm, N-91%, L-6%, M-3%.

PLAN FOR TREATMENT: Under spinal anaesthesia surgical debridement (*Chedana karma*) and dressing done on 15/1/2015

Procedure:

Patient was panned for surgical debridement under spinal anaesthesia on 15/1/2015. Pre-anaesthetic consent was taken and tetanus prophylaxis was done. As per *Sushruta* concept *Chedan* karma in *Kotha* was performed. Excessive gangrenous tissue excised and all necrotic scrotal skin along with some part of dortous muscle was excised. Then wound was cleaned with H2O2 solution and then by normal saline. Excised tissue was sent to histo-pathological examination and pus was sent to pus culture and sensitivity examination. Patient was shifted to *Sushruta* ward. All vitals were noted and intravenous broad spectrum antibiotic with analgesics and anti-inflammatory agent started for 3 days. *Panchatikta Guggulu, Amalaki rasayan* and *Ashwagandha churana* were given in their exact doses form.

DISCUSSION

Fournier Gangrene is a horrendous infection of the genitalia in this major medical emergency a bacterial infection spread quickly from urinary track (or the perianal, abdominal or retro-peritoneal area) often following trauma the gangrene is due to the thrombosis of small blood vessel bellow the skin.

Initially patient was given strong intravenous (IV) antibiotic and quick surgical debridement (*Chedana karma*) under spinal anaesthesia. It acts by removing necrosed tissue and slough. After surgical debridement wound was cleaned by *Panchvalkal Kwath* i.e. *shodhana* karma was done.

The drugs of *Panchavalkal*[5]

	Drugs	Latin Names
1	*Vata*	*Ficus Bengalansis* Linn.
2	*Udumbara*	*Ficus glomerrata* Roxb
3	*Ashwatha*	*Ficus riligiosa* Linn.
4	*Parisha*	*Thespesia populnes* Soland
5	*Plaksha*	*Ficus lecor* Buch. Ham.

These all drugs mainly contain Tannin[6] as a chief component. Tannin has astringent haemostatic antiseptic and tonic property which works as *Vranaropak, Vedanasthapan, Raktashodhak and Shothahar*. For the dressing of wound *Priyangavadi taila*[7] was used which was prepared in the laboratory of Shalya Tantra Faculty of Ayurveda IMS BHU Varanasi. *Priyangavadi Tail* has excellent wound healing properties. To avoid secondary infection *Panchatikta Guggul* was given to the patient who acts as an antibiotics. *Amalaki Rasayan*[8] was given for immunity booster and a source of vitamin C. *Ashwagandha churna*[9] was given as a *Balya Rasayan*. In this way *Chedana*, *Shodhana*,and *Ropan karma* were done systemically.

CONCLUSION

Fournier Gangrene is very hazardous condition which requires prompt diagnosis and management. Above case study implicate the role of *Panchavalkal kwath* in the management of Fournier Gangrene has excellent result. It helps in formation of granulation tissue earlier. Medication used in the management of Fournier gangrene works according to the concept of Sushruta i.e. *Chedana* then *Shodhana* by *Panchavalkal Kwath* and finally *Ropan* by *Priyangavadi tail*. Sometimes skin grafting or other plastic surgery is needed to reconstruct damage tissue, but the effect of *Pnchavalkal Kwath* and above other medication does not require reconstructive surgery because it promotes formation of granulation tissue and epithelialisation after the *Chedana Karma.*

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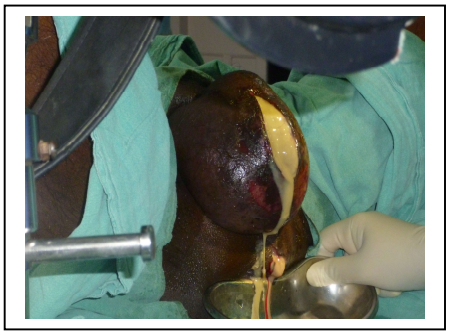
PHOTOGRAPH



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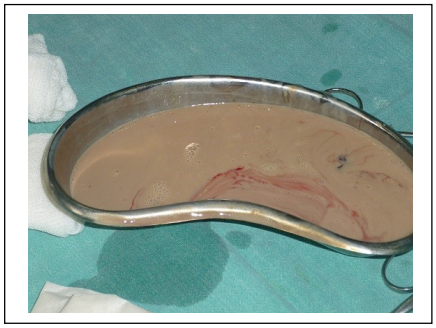

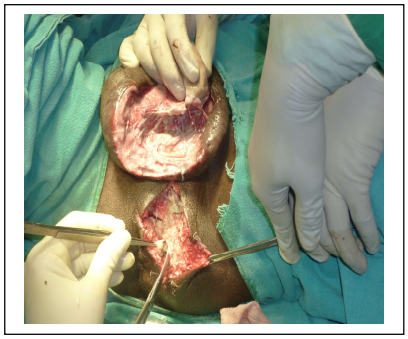

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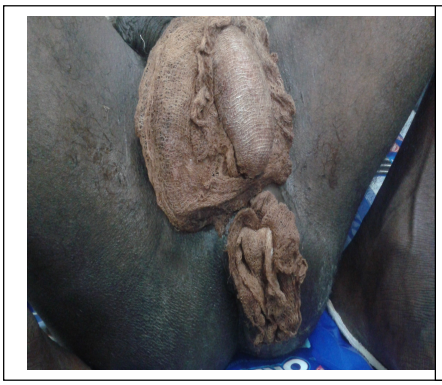
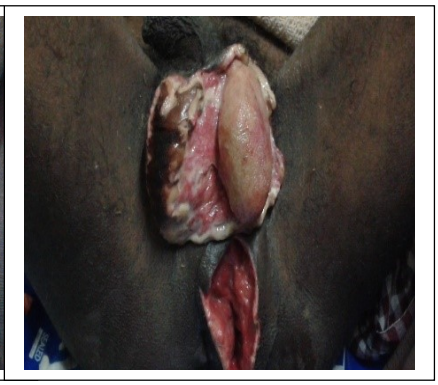


Sterile Gauze soaked with Panchavalkala 18/1/2015



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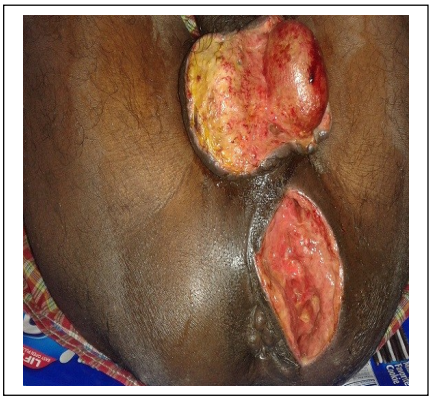

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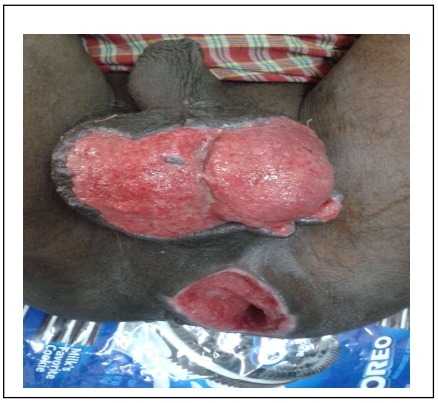

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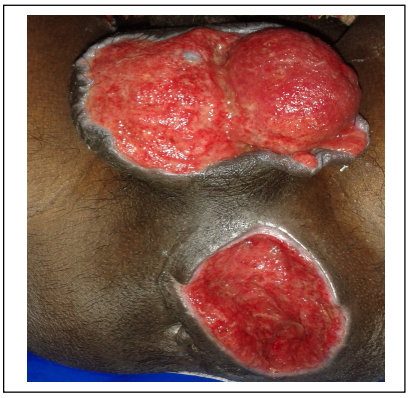

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