Review Article

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A Literary Review of Anal Incontinence with its Management

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Abstract

Anal Incontinence (AI) is known as fecal incontinence, bowel incontinence or accidental bowel leakage (AI). It refers to involuntary passage of fecal matters and flatus due to lack of control over defecation leading to involuntary loss of bowel contents including flatus, liquid stool elements, mucus or solid feces. It can be identified as the recurrent inability to voluntary control of the passage of bowel contents through the anal canal and expel out it in time, at a socially acceptable location. It can be termed as Aniyantrita Guda (AG) in Ayurveda. It has been observed that the suffering patients may be feeling of too embarrassed situation to seek medical help and attempt to self manage the conditions in secrecy from others. This type of incontinence may be common and often produces debilitating condition in elderly patients. The various 7-D etiological factors are responsible for anal incontinence i.e. decent, destruction, debility, deficiency, damage, de-nervation, and dementia; but geriatric, traumatic and obstetric and mostly anal surgical procedures are responsible to damage of the sphincter mechanism. The clinical features are presented as the patients use to wear pad, requiring frequent changes throughout the day. They prefer to remain alone and stay at home in order to avoid embarrassment and avoid ancillary problems. The diagnosis is made by clinical factors with sphincter muscle test. Three types of treatment like Medical, Surgical and Para surgical are conducted. The management consists of conservative measures include diet, exercise, yoga, social behaviors, pharmacological agents and surgical approach. The innovative Para surgical PCA therapeutic treatments including intake of Rasayana and practice of Yoga with exercise provide good result. Under this therapy clinically successful result oriented Kshara or non Kshara content medicines as per need of cases are used which are having no adverse result. About 84 cases has been treated in the Center for Care of Ano Rectum Research by Indian System of Medicine and Allied (CCARRISMA) at Puri and Bhubaneswar. This clinical review aims to encourage and support the distressed patients and focus to lead a healthy life.

Keywords: Incontinence; Aniyantrita Guda; Sphincter; PCA; Kshara; Rasayana; Yoga; Exercise.

Introduction

Anal incontinence is also known as fecal incontinence, bowel incontinence or accidental bowel leakage (AI). It refers to involuntary passage of fecal matters and flatus or it is a lack of control over defecation leading to involuntary loss of bowel contents including flatus liquid stool elements, mucus or solid feces. Otherwise it can be identified as the recurrent inability to voluntary control of the passage of bowel contents through the anal canal and expel out it at a socially acceptable location and time. It can be termed as Aniyantrita Guda (AG).

It is one of the most psychologically and socially debilitating conditions in an otherwise healthy individual; but it is generally treatable and management with result can be achieved through an individualize management of dietary, pharmacological and surgical measures. However it has been observed that the suffering patients may be feeling of too embarrassed situation to seek medical help and attempt to self manage the conditions in secrecy from others. This type of incontinence may be common and often produces debilitating condition in elderly patients.

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Terminology

This terminology can be referred to, as the types of fecal incontinence also, because characters presented in particular variety of incontinence is differed to other

a. Anal Incontinence (AI)- It implies to incontinence of flatus

b. Urge incontinence (UI) - It means to loss of stool due to inability to suppress urgency to defecate.

c. Passive incontinence (PI)- It informs to loss of stool without patient awareness.

d. Fecal incontinence (FI)-It in fact determines to incontinence of liquid of stool

i. FI can be occurred due to weakness of external anal sphincter (EAS) and also Internal Anal Sphincter (IAS).

Etiological Factors

The various 7-D etiological factors are responsible for anal incontinence which is described in a common understanding form.

1. Descent

a. Peri anal descent

b. Rectal prolapsed

2. Destruction

a. Malignant tumor

b. Irradiation

3- Debility

a. Illness

b. Old age

4. Deficiency: Congenital abnormalities

5- Damage – through

a. Wound

b. Surgical procedures in pelvic region

c. Child birth

6-De-nervation - through

a. Spinal injuries

b. Neurosurgical procedures

c. Neurological disorders like multiple sclerosis

d. Spine bifida

7-Dementia– due to

a. Senility (Old age)

b. Psychological abnormality

Among all the above etiological factors, geriatric, traumatic and obstetric cases are commonly found. Mostly anal surgical procedures are responsible for the damage of the sphincter mechanism, resulting in fecal incontinence.

In gross, the causative factors are described as congenital, anal canal, pelvic floor, rectum, central nervous system, overflow incontinence and diarrhea. Anatomical physiology functional and path physiology defects (As the mechanisms and factors contributing to normal continence are multiple and inter-related) become responsible to cause the incontinence.

Clinical Characters

1. The symptoms are so distressing that it becomes necessary for the patient to wear pad, requiring frequent changes throughout the day.

2. These patients prefer to remain alone and stay at home in order to avoid embarrassment and avoid ancillary problems.

3. The situation gets worsened day by day because the patient feels embarrassed to consult the doctor.

Fig. 1: Faecal incontinence(FI), **Fig. 2:** Feeling urgency to defecate(FUD), **Fig. 3:** Pressing anus to check leaking(PACL) **Fig. 4:** Passed the stool(PS) **Fig. 5:** Exam.of anal sphincter incompetency(ESI) **Fig. 6:** Impulsation of nerves from brain to sphincter (INBS)

Differential Diagnosis

The similar symptoms to rectal discharge should be differentiated from Fistulae, Proctitis, Rectal Prolapse, Pseudo incontinence, and Irritable Bowel Syndromes (IBS).

Diagnosis

The diagnosis depends on the clinician how skillfully the medical history and all necessary examinations are being carried out for perfect approach to the treatment. The following points may be touched as far as practicable.

- *History*

A careful medical history about the signs, symptoms, bowel habits, diets, addictions, medications and other medical problems should be taken to trace out the general and particular causative factors which can help for the treatment

- *Inspection*

The anorectal part is to be thoroughly examined by inspection for tracing out the external anal regions and affections.

- *Digital Rectal Examination*

This digital examination is one vital clinical diagnosis process which helps to guide the clinician for further evaluation and assessment of the tonicity of rectal muscle. It is conducted to assess the resting pressure and voluntary contraction by maximum squeezing of the sphincter complex and puborectalis. Next anal sphincter defects rectal prolapse and abnormal perianal decent may be detected.

- *Anorectal Manometer Test or Anorectal Physiology Test*

It is performed to assess the functioning ability of the anorectal anatomy. The manometer records the pressure exerted by the anal sphincters and puborectalis during rest and during contraction. The sensitivity of the anal canal and rectum is also assessed by this procedure.

- *Anal Electromyography*

It is one type of special investigation which brings a probable confirming diagnosis of anal incontinent due to nerve damage.

i. It detects the nerve damage which is often associated with obstetric injury.

ii. Pudendal nerve terminal motor latency test is done to know the damage of the pudendal motor nerves

- *Proctography*

It is also called as Defecography. It shows the functioning capacity of rectum that how much the quantity of stool content it can hold; how well the rectum holds the stool elements and how well the rectum can evacuate the stool. It also focuses on defects in the rectal structures like internal rectal intussusceptions.

- *MRI Defecography*

It is also known as dynamic pelvic MRI. It is an alternative procedure which is better for some problems but not as good as other problems.

- *Proctosigmoidoscopy Test*

This investigation procedure allows visualizing the interior of the gut and may detect the signs of disease or any other problems that could be a cause like tumor, inflammation and scar tissue. It involves of an endoscope which is a long, thin, flexible tube with camera into anal canal, rectum and sigmoid colon.

- *Endoanal Ultrasound Test*

It evaluates the structure of the anal sphincters and may find occult sphincter tears that otherwise would go unseen or be overlooked.

Treatment

There are three types of treatment carried out to manage this type anal incontinence. These are generally Medical, Surgical and Para surgical; but specific treatment is somehow practically difficult to set up for different types of incontinence having different origins. However it is treatable with conservative management. Generally the conservative measures are used together and if appropriate condition found then surgery may be carried out. The management consists of conservative measures include diet, exercise, yoga, social behaviors, pharmacological agents and surgical approach. The innovative Para surgical treatments provide good result.

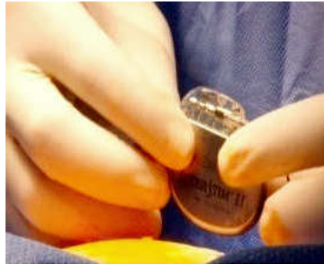

Fig. 1: ASD

Fig. 2: Use of (Artificial Sphincter Device)

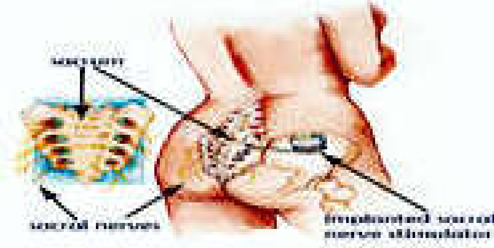

Fig. 3: (Implanted Sacral Nerve Stimulation)

Surgery

The principle of surgical treatments in concise manner are described which can be followed by the colorectal surgeons according to the factors. Treatment is done by the expert surgeon depending on the cause and availability of infrastructure and facility at a particular place.

a. Traumatic division of sphincter can be repaired surgically. Obstetric tears are often dealt with primary suture.
b. If the sphincter muscle is partially or completely divided, and becomes lax, then it may be tightened by suture
c. Sphincteroplasty can also be performed followed by perfect management consisting of diet behavior etc for a considerable period.
d. Operation of Thiersch wire is considered in elderly unfit patients. It depends upon the surgeon to judge the patient over conditions.
e. Artificial sphincter device (ASD) can be used adopting due procedure for temporary relief.
f. Implantation of sacral nerve stimulation can be under taken in case of nerve damaged for better relief.

Complications of Surgically Sphincter Repair

It is a traditional procedure done under general anesthesia for management purposes. It invites and fixes multiple problems at the same time. It carries maximum following adverse effects.

i. Wound infection
ii. Worsening of continence
iii. Poor results are achieved
iv. Result may continue for 05 years
v. Poor result would lead to find for better treatment

Para-Surgery

Considering the adverse effects of surgery, the surgical intervention is apparently avoided and conservative and Para surgical treatments are promoted. Number of returned cases seeking the remedial measure has consulted and received the treatment in the ano rectal research centre.

PCA Therapy

This PCA therapy is the terminology applied to Kshara Karma. PCA defines to Potential Cauterizing Agents of Kshara products. Different Kshara products have their own potential effective value and their uses depend upon the trained and skill surgeon. Under this therapy clinically successful result oriented Kshara or non Kshara content medicines as per need of cases are used which are having no adverse result. Number of cases has been treated in the Center for Care of Ano Rectum Research by Indian System of Medicine and Allied (CCARRISMA) at Bhubaneswar. This center is functioning under the Indian Proctology Society guided by experienced and expert faculty members of gastroenterology.

1. Mild Kshara oil, if partial stricture alone or mixed with any muscle tonicity enhancer oil like Masabaladi oil in adequate dose locally introducing application into anal canal, twice a day 12 hourly for a period of 3 months helps a lot which has been assessed in different cases.
2. Jatimashadi or Mushikadi oil is preferred to introduce for a period of minimum three months or more to increase the tonicity of the anal muscles which in fact helps the patient to recover the anal health
3. Mild Kshara ointment application in anus helps to remove the anal stricture if any present.
4. Other healing, soothing, and muscle tonicity increasing ointments like Shyama ghrita, or Jatikalpa ghrita can be used to accelerate the actions of treatment in combination process.

Medical

The medical guidelines the pharmacological

management includes the anti diarrheal, constipating and stool bulking agents which helps to control the incontinence. There are maximum oral medicines, general tonics which promote the strength of muscles and provide power of functions.

Aim of the Treatment

The principle of approach is taken to develop the muscular-skeletal system by administrating the medicines internally and locally applications. Therefore the general tonics, geriatrics, neuron tonics, aphrodisiacs and Rasayana medicines provide the strength developing the tonicity of muscles.

Classical oral Medicines

Some experienced and effective medicines are cited here for treatment which is to be used internally for a suitable period. These are classical medicines - Chandraprabha gutika, Yogeswara rasa, Basanta Tilaka Rasayana, Bidangadi louaha, Basanta kusumakara Rasayana, Shilayatu Rasayana Rasraja rasa, Aswagandha Rasayana, Bangeswara rasa, Dhatri lauha, Amalaki Rasayana, Dhatri louaha, Amritarnab rasa, Vanari vati, Nilakanth rasa, Purna chandra rasa, Trailoka chintamani, Amrita bhallataka, Anangakusuma, Chandrodaya makaradhwaja, Aswagandha ghrita, Chhagaladya ghrita, Banari modaka, Sunthikhanda modaka/ Rasayana, Supari paka, Mushali paka, Chyavana prasa, Amritankura lauh, Amrita avaleha, Bajikara rasa etc. Besides the patent medicines if found effective can be also prescribed and also the integration approach sometimes helps a lot for early recovery.

The clinician is independent to prescribe the medicine considering the state of the disease from above or else whichever is available with proper dose, time, frequency and period.

External Applications

Jati masadi tail, Vala tail, Mahamasa tail, Prasarani tail, Mushikadi tail, Masabaladi tail, Vidaryadi yamakam, Jatikalpa oil, Bajikara oil, Lajyalubala oil, and Jatikalpa ghrita, Shyama ghrita, Aswasthabaladi ghrita etc.

Among these or else experienced effective oil or ointment, one or two mixed oil or ointment can be introduced into anal canal as per dose for a considerable period to grow the strength of the muscles.

Diet

The diet has big role to give relief to the patient. The patient should be advised to increase dietary fibre foods, and to reduce the wholegrain cereals breads, fruits, vegetables beans, pulses cabbage, sprouts, spices, particularly chili, artificial sweeteners like sugar free chewing gum etc which contain natural laxative compounds and tea, coffee and caffeine products. The caffeine effect to lower the resting tone of anal canal and may cause loose motion.

Exercise

The pelvic floor exercise, anal sphincter exercise and yoga practices are stated to increase in strength speed or endurance of voluntary contraction.

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