Supportive therapies in ano-rectal diseases – Are they really useful?

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Epidemiological features of proctological disease are not well known because available studies have provided variable conclusions. Risk factors frequently mentioned include heredity, high socioeconomic level, obesity, smoking, a diet rich in fats, alcohol, spices and pepper as well low fluid intake have all been implicated.

While treating patients with various ano-rectal pathologies, apart from definitive treatment, various additional or supportive therapies are being advised both by the family physicians and surgeons. These include local applications, sitz baths, modification in the diet and life style. But are these supportive therapies really beneficial or they are just empirical?

This paper elaborates the various supportive therapies advocated in the common anal disorders like hemorrhoids, anal fissure and fistula and summarizes the advantages and pitfalls of these treatment additives.

Key words: suppository, haemorrhoid cream, sitz bath, diet

INTRODUCTION

Despite thousands of years and millions of patients with pain, discomfort, and perceived embarrassment of ano-rectal disorders, where the exact nature and cause of the conditions is quite clear, the standard conservative treatments are still a matter of debate.

Therapies in vogue such as topical agents, hydrotherapy, diet, and lifestyle factors are some of the non-invasive approaches to these conditions.

Hemorrhoid creams

The role of the hemorrhoid topical preparations is to provide temporary relief from hemorrhoidal discomfort, to prevent further irritation, to provide shrinkage of the swollen hemorrhoidal tissue and prompt soothing relief from painful burning, itching and discomfort. Ointments containing opiates, xylocain, amethocain, and cinchocain to relieve pain, belladonna to alleviate sphincter spasm and silver nitrate to promote healing have all had been in use. These mixtures are introduced either with the finger or through a short rectal bogie to ensure a thorough application over the affected part of the anus. Recent reports of topical application of Solcoderm, Ketanserin gel, eutectic mixtures of 5% Prilocain and 5% Lidocain or combination of Policesulen and Cinchocain have all shown good symptomatic relief in anal pain.2

Topical sucralfate and metronidazole have been found to reduce pain after hemorrhoidectomy and promoting faster wound healing.

Some hemorrhoids are associated with high resting anal canal pressures. A topical glyceryl trinitrate 0.2% ointment was effective in relieving symptoms of early grade hemorrhoids associated with high resting anal canal pressures.

A topical treatment for hemorrhoidal pain and for spasms of the sphincters and muscles containing amino acid L-arginine can be applied directly to the affected area. This topical preparation is effective in relieving the pain of hemorrhoids or in treating conditions resulting from spasms of sphincters of the anal canal including anal fissure and postoperative rectal pain.

A rectal cream containing 0.25% oxethacaine chlor-hydrate has been demonstrated to be clinically efficient in the treatment of Grades I and II hemorrhoids as well as in post surgical treatment both for the attenuation and elimination of pain and the clinical objectives of the pathology in question.

A heparin and enzyme (trypsin and chymotrypsin) paste has been reportedly found to improve the sympto-ms by resolution of acutely inflamed hemorrhoids.

Topical nifedipine, diltiazem and 1% isosorbide dinitrate,3 are few other options in the conservative treatment of thrombosed external hemorrhoids. Synthetic Diosmine has also been used as a topical treatment for acute hemor-
Suppositories - Rectal route is being used effectively in proctological disorders since time immortal. Drugs mixed with various adjuvants and administered through the rectal route provide satisfactory pharmacokinetics, which have an acceptable local tolerance.

Suppositories are a medicated solid dosage form intended for insertion into the body orifices. They include- Benzalkonium chloride, Boric Acid and Framycetin sulphate.

Several glucocorticosteroids are used in rectal suppositories. They include hydrocortisone and its derivatives, diflucortolone valerate and prednisolon. The steroids act as decongestant, anti-inflammatory and anti-pruritic agents and in doing so they eliminate inflammation and mucus discharge. It has been postulated that the analgesic effects of local anesthetics is apparently prolonged by an increase in the threshold for pain by the anti-inflammatory effect of steroids.

Suppositories containing astringents causes the cells of the anal skin to clump thereby drying the skin, which gives relief from burning and itching.

Policresulen coagulates necrotic or pathogenically altered tissue in anorectal disorders, which helps in the treatment of hemorrhoids. The treatment is very well tolerated and produces no unwanted side effects if properly used.

A mixture of honey, olive oil, and beeswax has been found to be clinically effective in the treatment of hemorrhoids and anal fissure. The honey mixture significantly reduced bleeding and relieved itching in patients with hemorrhoids. Patients with anal fissure showed significant reduction in pain, bleeding, and itching after the treatment. No side effect was reported with use of the mixture.

These topical preparations should be used with caution in patients with heart disease, hypertension, thyroid disease, diabetes, pregnant or breast-feeding women and patients having dysuria due to enlarged prostate. The patient should not exceed the recommended daily dosage unless directed. Patient is advised to report in case of bleeding or if condition worsens or does not improve within 7 days.

These agents may provide short-term relief from anal discomfort, but there is a lack of evidence to support their widespread use. They do not affect the underlying pathological changes in the anal cushions. Continuous application can cause eczema and sensitization of the anoderm; rectal absorption can lead to systemic side effects. Suppositories are a medicated solid dosage form intended for insertion into the body orifices. They do not affect the underlying pathological changes in the anal cushions. Continuous application can cause eczema and sensitization of the anoderm; rectal absorption can lead to systemic side effects. Suppositories are a medicated solid dosage form intended for insertion into the body orifices. They include- Benzalkonium chloride, Boric Acid and Framycetin sulphate.

Some common astringents that are used include Hamamelis water, which is a mild astringent prepared from twigs of Hamamelis virginiana. It helps in relief from the hemorrhoidal itch. Zinc oxide prevents the irritation at the perianal area by forming a physical barrier on the skin that protects the contact of the irritated skin with aggravating liquid or stool from the rectum.

Vasoconstricting agents help in relieving symptoms of hemorrhoids. On application, these drugs reduce hemorrhoidal congestion. These products additionally contain mild form of anesthetic, which helps in relieving pain and itching. The commonly used vasoconstrictors are Ephedrine sulfate and Phenylephrine.

Passing hard and dry stool is the most traumatic experience in patients having anal pathology as it results in tearing of the skin around the anus, as also in tearing and cracking which ends in bleeding. Again, when this tender skin comes in contact with liquid or stool, it causes the skin to further itch and burn.

Protectants, when applied in the form of suppositories, form a physical barrier on the skin and results in reducing the pain quotient and the pruritus. These also protect the broken skin from coming in contact with offending particles in the stool.

While a variety of protectants are used in suppositories, a few commonly used are:

- Aluminium hydroxide gel, Glycerin, Lanolin, Aloe Vera, White petrolatum, Zinc Oxide and Calamine.
- Polycresulen coagulates necrotic or pathogenically altered tissue in anorectal disorder and promotes desquamation of such tissues. The healthy tissues surrounding the wound are not affected. As a local haemostatic, polycresulen coagulates blood proteins thereby inducing muscle fibers of small vessels to contract and thus any hemorrhage in the anal canal or in the perianal area is controlled. It also induces hyperemia in the wound area and thereby stimulates regeneration and re-epithelization process. It also has an antimicrobial property which guards against infection and prevents inflammation. Polycresulen also has an astringent property and thus it suppresses oozing.

It has been suggested that the suppositories should be inserted with the patient lying on the left lateral side with the right knee bent. The suppositories should be dipped in water before use, which facilitates the easy insertion of the suppositories. It should be kept in cold water or refrigerated.
Sitz bath

A sitz bath, also called a hipbath is a type of bath in which only the hips and buttocks are soaked in water or saline solution. A sitz bath is used for patients who have had surgery in the area of the rectum, or to ease the pain of hemorrhoids, uterine cramps, prostate infections, pain-ful ovaries, and/or testicles. Inflammatory bowel diseases are also treated with sitz baths.

Sitz bath is frequently recommended by physicians for a variety of disorders including ano-rectal diseases and gynecologic conditions. Warm sitz baths are one of the easiest and most effective ways to ease the pain of hemorrhoids. A brief, cool sitz bath helps ease inflammation, constipation, and vaginal discharge. It can be used to tone the muscles in cases of bladder or bowel incontinence.

Even though no scientific evidence is available to indicate that sitz bath can promote faster healing or offer reduction in postoperative complications, it is probably frequently recommended because of the low morbidity it carries. Furthermore the other perceived benefits include improved anal hygiene and symptomatic relief for some patients.

The exact physiology of sitz bath is not known. It has been hypothesized that pain relief after sitz bath could be the result of internal anal sphincter relaxation with a resulting diminution of the rectal neck pressure. A decrease in internal sphincter pressure during the sitz bath has been observed. It is found that warmer water led to a longer duration of low internal sphincter pressure. It is postulated that the relaxation of the internal sphincter muscle is mediated through sensory perianal skin receptors getting stimulated by warm water. The decrease in spasm and pain relief is attributed to this 'thermosphincteric reflex'. It is found that hot water sitz bath produced relaxation of internal urethral sphincter, causing vesical contraction and eased urination in patients operated for hemorrhoidectomy.

At time a good response is achieved with a "contrast bath" of both hot and cold. For this a patient should have a tub of hot water (about 110°F/43°C) and one tub of ice water. The patient should sit in the hot water for three to four minutes and in the cold for 30-60 seconds. This is repeated three to five times, always ending with the cold water.

If two tubs are not handy, the patient may sit in a hot bath (up to the navel). Then the patient stands up in the water and pulls a cold towel between the legs and over the pelvis in front and back. The cold towel is held in place for up to 60 seconds. Then the patient should sit back into the hot bath, and repeat the process 3-5 times, ending with the cold towel.

A variety of medicaments and additives have been used and recommended with the sitz bath for different proctological disorders. These include antiseptic solutions, table salt, Povidone Iodine, Potassium Permanganate, Vinegar and Hydrogen peroxide. Aromatherapy application using essential oils with Lavender, Myrrh, Neroli, Rose, Grapefruit, Mandarin, Orange, and Roman Chamomile are also being recommended. How far these additives are useful remains a mystery.

It should be understood that the basis of sitz bath is application of variable temperature to the ano-perianal region and the other factors are secondary. It should also be remembered that the addition of medicaments to the water has caused harm than help at many occasions. Local allergic reactions, dermatitis, dissemination of genital herpes, dissolution of sutures of surgical wound, and development of pustules and bullae have been reported.

Sitz bath is frequently prescribed but proper instructions as to how to perform it are seldom given to patients. In general, the water is expected to cover only the perineum and lower pelvis. Immersing other parts of the body in warm water could lead to systemic vasodilatation and decrease circulation to the perineal area.

Because of the explicit nature of this treatment, patients should be given specific instructions on how to correctly perform sitz bath, including the temperature of the water, time and frequency for which the bath should be taken. It should ideally be taken twice daily for about ten minutes each time. The temperature of water should not be too hot as there are reports of gluteal and perineal burns following sitz bath especially in children.

Food and its ingredients have a pivotal role in causing and preventing ano-rectal diseases. People who consistently eat a high-fiber diet are less likely to get hemorrhoids, but those who prefer a diet high in processed foods can expect them. A low-fiber diet or inadequate fluid intake can cause constipation, which can contribute to hemorrhoids in two ways: It promotes straining during defecation and it also aggravates the hemorrhoids by producing hard stools that further irritate the swollen hemorrhoidal cushions.
Chilies and other spices have been known to aggravate symptoms of anal pathologies. Chilies are generally believed to be harmful to patients with anal pathologies like anal fissures and hemorrhoidal disease. Consequently, these patients are advised to take a relatively bland diet containing little or no spices and chili. This view is perhaps based on experimental findings that red chili powder damages the colonic mucosa. Intragastric instillation of red chili powder in human volunteers caused a considerable increase in the deoxyribonucleic acid content of gastrointestinal tract, suggesting exfoliation of the surface epithelial cells. Sun dried chilies, which contains capsaicin and dihydrocapsaicin contains nitrophenols, which by producing nitroration of foodstuff, often believed to be gastric stimulant, are known to cause toxicity in the gastrointestinal tract. Capsaicin is known to affect visceral sensory perception.

The exact mechanism by which chilies influence the colonic and rectal physiology is not well understood. Capsaicin, the pungent principle of hot pepper, has the ability to excite and later defunctionalize a subset of primary afferent neurones. Chilies are known to cause rectal hyperalgesia in patients with irritable bowel syndrome. A significant increase in the number of mucusal inflammatory cells and an increase in BrdU-immunoreactive nuclei were detected following mucosal exposure to capsaicin in the colon. Chilies are known to cause accelerated gut transit increasing frequency of stool which itself could be a factor aggravating symptoms of anal pathologies. Chilies are known to cause rectal hyperalgesia in patients with irritable bowel syndrome. A significant increase in the number of mucosal inflammatory cells and an increase in BrdU-immunoreactive nuclei were detected following mucosal exposure to capsaicin in the colon. Chilies are known to cause accelerated gut transit increasing frequency of stool which itself could be a factor aggravating symptoms of anal pathologies.

While it is expected that the a physician should take a good advantage of these measures, he should be prudent not to get carried away with the claims made by the manufacturers of the various topical preparations. A judicious application of these measures on case to case basis should certainly be beneficial in reducing the aggressiveness of the disease as well as preparing the patient for surgery in the best environment, followed by better postoperative convalescence and reduced complications.

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SUMMARY

SUPORTIVNA TERAPIJA KOD ANOREKTALNIH OBOLJENJA - DA LI JE ZAISTA KORISNA?

Epidemiološka obeležja proktoloških oboljenja nisu široko poznata, pošto su do sada sprovedene studije da se različite zaključke. U spomenute faktore rizika spadaju naslednje, visok socioekonomski nivo, gojaznost, pušenje, ishrana bogata mastima, alkohol, začini i biber, kao i niz različitih faktora. U toku lečenja pacijenata sa raznom anorektalnom patologijom, osim definitivnog tretmana, razne dodatne i suportivne terapije su sagovarane od strane lekara i hirurga. U njih spadaju lokalne aplikacije, kupke, modifikacije ishrane i načina 'ivota. Ali, da li pacijent zaista ima benefita od ovih suportivnih terapija ili imaju samo empirijsko značenje?

Ovaj rad elaborira različite suportivne terapije sagovarane kod čestih analnih patologija, kao što su hemoroidi, analne fisure i fistule, i rezimira prednosti i zamake ovakvog pristupa.

Ključne reči: suppository, hemorrhoid cream, sitz bath, diet

REFERENCES