

Common Anorectal Conditions

Pravin J. GUPTA

Consulting Proctologist Gupta Nursing Home, D/9, Laxminagar, NAGPUR- 440022 INDIA

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Anorectal disorders include a diverse group of pathologic disorders that generate significant patient discomfort and disability. Although these are frequently encountered in general medical practice, they often receive only casual attention and temporary relief.

Diseases of the rectum and anus are common phenomena. Their prevalence in the general population is probably much higher than that seen in clinical practice, since most patients with symptoms referable to the anorectum do not seek medical attention.

As doctors of first contact, general (family) practitioners (GPs) frequently face difficult questions concerning the optimum management of anorectal symptoms. While the examination and diagnosis of certain anorectal disorders can be challenging, it is a matter of concern that the physical examination of the anorectum is often inadequately performed in general clinical practice.

The diagnosis and management of hemorrhoids, fissures, and pruritus ani, account on rough estimates, for more than 81% of the complaints centering around this part of the human anatomy.

This brief treatise attempts to offer a safe and practical approach to the management of a variety of anorectal diseases.

Brief description of the anal canal - The anus is the outlet to the gastrointestinal tract, and the rectum is the lower 10 to 15 cm of the large intestine. The anal canal starts at the anorectal junction and ends at the anal verge. The average length of the anal canal is 4 cm. The midpoint of the anal canal is called the dentate line. This

dentate or pectinate line divides the squamous epithelium from the mucosal or columnar epithelium. Four to eight anal glands drain into the crypts of Morgagni at the level of the dentate line. Most rectal abscesses and fistulae originate in these glands. The dentate line also delineates the area where sensory fibers end. Above the dentate line, the rectum is supplied by stretch nerve fibers, and not pain nerve fibers. This allows many surgical procedures to be performed without anesthesia above the dentate line. Conversely, below the dentate line, there is extreme sensitivity, and the perianal area is one of the most sensitive areas of the body. The evacuation of bowel contents depends on action by the muscles of both the involuntary internal sphincter and the voluntary external sphincter.

Symptomatology of the anorectal lesions

The presentations of symptoms in patients with anorectal pathologies are mostly typical, but they may be misleading due to the patient's understatement or underplaying of symptoms.

The common symptoms denoting anorectal pathology are- (in the order of frequency)

Symptomatology of anorectal pathologies

1. Anal pain
2. Bleeding per rectum
3. Pus discharge from and around anus
4. Prolapse

5. Anal pruritus
6. Presence of swelling or lumps in or around anus
7. Passage of mucus per rectum
8. Constipation or fecal obstruction
9. Frequency of stool
10. Difficulty in passing stool
11. Incontinence to flatus or feces.

A systematic approach to patients with anorectal complaints allows for an accurate and efficient diagnosis of the underlying problem. The process can be divided into the interview, the examination, and conveyance of information. Throughout this process, the patient must be reassured and made as comfortable as possible.

The key to diagnosis remains the patient history, with confirmation by visual inspection and anoscopy. Expensive workups are usually not required. Based on the symptoms and possible differential diagnosis, further investigation may be necessary.

The most common anorectal lesions encountered in family practice are- (in the order of frequency)

Common anorectal lesions

Commonest

- Hemorrhoids [Internal or external]
- Anal fissures [Acute or chronic]
- Anal fistula [Low or high]
- Abscesses [Perianal, ischio-rectal, submucos]
- Polyps [Adenomatous, fibrous anal, juvenile]
- Rectal Prolapse [Mucosal or complete]
- Anal skin tags or sentinel pile
- Anorectal sepsis [Hydradenitis suppuritiva, AIDS, syphilis]

Less Common

- Sacro-coccygeal pilonidal sinus disease
- Neoplasm [Benign or malignant]
- Condylomas
- Connective tissue masses like papilloma, fibroma, and lipoma.
- Antibiooma [Organized abscess]

- Inflammatory conditions [Proctitis, anal cryptitis and papillitis]
- Inflammatory bowel disorders [Ulcerative colitis and Crohn's disease]
- Hypertrophied anal papillae.

Uncommon

- Strictures of anal canal or rectum
- Solitary rectal ulcer
- Incontinence [Flatus or feces]

Investigating a case of anorectal lesion- The patient's history, and inspection and palpation of the anorectum remain the basic, essential features of diagnosis. A successful interaction with the patient leads to a diagnosis and a treatment plan that is acceptable to both the physician and the patient.

Anoscopy [proctoscopy] remains the mainstay in the detection of anal pathologies. When a more proximal lesion is suspected, a sigmoidoscopy or colonoscopy along with biopsy is needed. Anorectal physiology and endoanal ultrasonography are also regarded as essential investigative techniques in a colorectal laboratory. Anal manometry and defecography are more advanced investigative tools for colorectal workup.

Fistulograms, magnetic resonance imaging, and tomographic scanning are other investigations to be mentioned.

Treatment of anorectal diseases-

Family physicians can treat most of the common anorectal disorders they see in general practice. Most cases can be treated by conservative medical treatment (e.g., dietary changes, sitz baths, analgesics, antibiotics, stool softeners, hemorrhoidal creams and suppositories) or nonsurgical procedures.

In recent years, great interest has been generated in the field of proctology. The availability of new diagnostic and operating tools and a refinement in technique, coupled with new therapeutic modalities, have contributed to interesting research results in providing relief for patients needing proctological intervention.

An attempt has been made in the following paragraphs to describe in brief the therapeutic modalities of common anorectal disorders.

Anal fissures-

Acute anal fissures are superficial and are usually multiple. They respond well to conservative therapies like warm sitz bath, application of various hemorrhoidal creams, analgesics, and dietary modifications. Proper anal hygiene and correction of chronic constipation or diarrhea are essential to prevent recurrence of fissures.

Chronic anal fissures are mostly found on the posterior or anterior midline. They are often associated with pathologies like sentinel tags, anal papillae, fibrous polyps or hemorrhoids. Therapies useful for acute fissures may only provide short-term relief in such chronic forms. In addition, they need some sort of internal sphincter manipulation. Such manipulation may be either surgical or nonsurgical.

A few of the non-surgical treatment modalities are summarized below (1).

Method	Advantages	Disadvantages	Cost factor	Cure rate
Inj botox	Easy office procedure, single injection.	Invasive, toxicity, infection.	Costly	79%
Oral nifedipine	Oral or topical administration, faster healing of fissure.	Short duration of action, side effects like headaches.	Economical	90-95%
Local application of vasodilators [nitroglycerine]	Easy application. Short duration of treatment, high healing rates.	Headache in 20-100% of patients. High recurrence rate.	Economical	60-90%
Alpha-1 adrenoceptor blockers.	Once daily dose.	Recently introduced study. Long-term effects not known.	Economical	70-80%
Chemical cauterization	Easy application, faster healing.	Toxicity of drugs, generalized poisoning and infection.	Economical	60-70%

Despite the initial success with these pharmacological agents in the treatment of patients with chronic anal fissures, a growing concern is developing about their use. Increases in the incidences of adverse effects and a decrease in long-term efficacy have been the major drawbacks of such nonsurgical therapies.

Surgery remains the option to be offered to patients with relapse or therapeutic failure of pharmacological treatment already undergone. There is a consensus that a controlled lateral internal sphincterotomy is the best surgical procedure for chronic anal fissure. Both open and closed methods are equally effective. Although the cure

rate is above 90%, a systematic review of randomized surgical trials shows that the overall risk of incontinence is about 10%, which is formidable (2).

Treatment of hemorrhoids-

It has been estimated that 50% of the population develops hemorrhoids by the age of 50 (3). Although patients often consider the condition to be a single simple disease, it may not be so. Hemorrhoids share their symptoms with a whole series of other diseases and it is this lack of specificity that calls for a thorough examination to reach a precise diagnosis.

Grades	Symptoms	Signs
I	Bleeding and discomfort	Hemorrhoids visible on anoscopy, which may protrude during straining.
II	Bleeding, discomfort, Discharge /pruritus	Prolapse visible at anal verge during straining with spontaneous return to normalcy when straining ends.
III	Bleeding, discomfort, discharge/pruritus and staining of undergarments.	Prolapse requiring manual replacement.
IV	Bleeding, discomfort, discharge/pruritus and staining of undergarments and pain.	Irreducible prolapse.

The following table elaborates the various treatment options for different grades of hemorrhoids:

Hemorrhoid grade	Treatment options
Grade I	<ul style="list-style-type: none"> o Sclerotherapy o Infrared photocoagulation o Bicap o Doppler guided hemorrhoidal artery ligation [DGHAL] (4) o Radiofrequency ablation (5)
Grade II	<ul style="list-style-type: none"> o Rubber band ligation o Infrared photocoagulation o Heater probe o Ultroid [Direct current probe] o DGHAL o Radiofrequency ablation
Grade III	<ul style="list-style-type: none"> o Surgery [Conventional, diathermy, harmonic scalpel, laser] o Stapler hemorrhoidopexy (6) [PPH]
Grade IV	<ul style="list-style-type: none"> o Surgery o Stapler hemorrhoidopexy [PPH]

Medical treatment of hemorrhoids- Although not constituting an etiological treatment of the disease, conservative treatment does have a role in relieving the symptoms of hemorrhoids and associated complaints (7).

Medical treatment of hemorrhoids

- o Control of constipation using bran, mucilage, lactulose or bulk forming laxatives
- o Increasing daily intake of fiber
- o Avoidance of colonic stimulants like coffee, tea and spices
- o Use of flavonoid derivatives [Diosmin] and calcium dobisilate
- o Use of hemorrhoidal creams, ointments and suppositories
- o Use of anti-pruritics
- o Adequate local hygiene

Treatment of anorectal sepsis- The anorectal area may be involved in several infectious and inflammatory processes. Abscesses often have their origin in an infection in the anal glands. The suppurative process then tracks through the various planes in the anorectal region.

The infection can present at the anal verge as a perianal abscess. These abscesses can easily be drained in the office under local anesthesia.

Bacterial, viral, and protozoal infections can be transmitted to the anorectum via anoreceptive intercourse. Anorectal sepsis is a medical emergency requiring immediate hospitalization and treatment, including surgical debridement and high dosages of broad-spectrum antibiotics. Rarely, perineal sepsis can occur as a complication of rubber band ligation or sclerotherapy of internal hemorrhoids (8). Potential rectal complications arising out of HIV infection include infectious diarrhea, acyclovir-resistant strains of HSV2, Kaposi’s sarcoma, lymphoma, and squamous cell carcinoma.

Treatment of anal fistula- Patients with fistulas are generally referred to a specialist for treatment. In addition to simple fistulotomy, treatments include cutting or draining setons, endo-anal mucosal advancement flaps, sliding cutaneous advancement flaps, fistulectomy with muscle repair and fibrin glue injection.

Treatment of pilonidal abscesses and sinuses- Pilonidal abscesses can be drained under local anesthesia in the office. Sinuses can be laid open in a similar manner. The presence of hair in the wound is one of the prime

causes of incomplete healing or recurrence. The hair should be meticulously shaved at regular intervals. Care should be taken that the wound continues to remain free of hair all the time.

Multiple or recurrent sinuses should be dealt with only by specialist centers.

Treatment of rectal prolapse- Rectal prolapse may be mucosal or full thickness [procedentia]. In mucosal prolapse, there is a complete eversion of the anal mucosa. On the other hand, rectal prolapse is a full-thickness evagination of the rectal wall outside the anal opening.

Treatment in both situations is through surgical intervention. Various abdominal and perineal procedures are in vogue and the choice of procedure depends on factors like the age of the patient and the presentation of the disease.

Treatment of rectal polyps- The commonest type is the adenomatous polyp, which may be scattered throughout the colon. A complete colonic evaluation is mandatory to determine the extension of the pathology. These polyps may well be a precursor to malignancy.

A child presenting with bleeding per the rectum and the protrusion of 'something' from the anus may have a juvenile rectal polyp, which needs colonoscopy, biopsy, and removal.

Occasionally, fibrous anal polyps may be found in association with anal fissures or hemorrhoids. These also have to be removed.

Treatment of malignancies of the rectum and anal canal- Cancer of the anorectum can manifest itself in many different symptoms or may be found incidentally during rectal examination. Pain in the early stages is usually absent, and the pathology may generally be considered to be and treated as 'piles' because of intermittent bleeding per the rectum. An external or internal mass may be palpable. Anal cancer can present as an ulcer, as a polyp, or as a verrucous growth. Most anal cancers respond well to treatment with combined chemotherapy and pelvic radiation.

Colorectal cancers almost always need surgical treatment. Once these cancers become symptomatic, the prognosis worsens. When it is diagnosed at an early stage, 95% of patients with colorectal cancer may well survive for periods exceeding 5 years.

Treatment of anal warts [condylomas]- These present as warty growths in or around the anus. There may be a single wart, or there may be a crop growth of different sizes extending in the perineum and genitals. Although common in those who engage in anal intercourse, they can also occur in patients with no such history in whom the infection is believed to occur due to the pooling of secretions in the anal area from elsewhere.

These warts can produce pruritus, soiling and bleeding and may be a constant source of irritation.

Various office procedures are available for their treatment.

Treatment of anal warts

- o Application of 85% trichloroacetic acid [TCA]
 - o Cryotherapy # oral interferon and fluorouracil
 - o Radiofrequency ablation # laser removal
electrodesiccation # surgery
-

Treatment of inflammatory bowel diseases- The anorectal area can be involved in several infectious and inflammatory processes. They present with rectal discomfort, tenesmus, rectal discharge, and constipation/increased stool frequency. The rectal mucosa are often friable, and these processes are usually associated with a mucopurulent discharge.

Ulcerative colitis or Crohn's disease can involve the rectal area, presenting as proctitis or fistulae. A full-length colonoscopy and biopsy are needed to establish the diagnosis. Medical treatment proves beneficial in most patients. Drugs like sulfasalazine, 5-aminosalicylic acid and corticosteroids have often been found effective in containing the problem. These medicines are also used in the form of suppositories and enemas.

In case of failure of medical therapy or recurrence, surgical intervention is indicated.

Treatment of external anal tags- These are usually asymptomatic. They are mere remnants of old thrombosed external hemorrhoids. If these tags cause symptoms like itching, anxiety, or hygienic problems, they can be removed under local anesthesia. If they are too extensive, excision may be needed under a short general anesthesia.

Treatment of anal stenosis or stricture- A conservative approach using stool softeners, osmotic agents, and lubricants that ensure the smooth passage of the stool is effective in most cases. Regular anal dilatation using a metal dilator is another option in anal strictures of recent origin. If the above treatment fails, then surgical correction is needed.

Solitary rectal ulcer- This is found less commonly, and the pathology can affect patients of all ages. Chronic solitary ulcer is usually associated with defecation disorders and is often confused with or mistaken for rectal cancer. The patient presents with an ulcerated mass. The appearance closely resembles cancer. The lesion must be biopsied to make sure that it is not neoplastic. Treatment includes laxatives and excision in appropriate cases.

Treatment of incontinence- Treatment is generally directed at the underlying cause and minimizing symptoms. Discrete muscle injuries are usually best treated by surgical sphincter repair. Fecal incontinence secondary to neuropathy is treated with bulking and antimotility agents. Recent approaches to the surgical therapy of incontinence include the use of an artificial bowel sphincter, and the electrical stimulation of sacral nerves to modify pelvic floor function (9).

Rectal injuries- Rectal injuries may result from penetrating or blunt trauma, iatrogenic injuries, or the presence of foreign bodies. Rectal injury should be suspected when a patient presents with low abdominal, pelvic, or perineal pain or bleeding per the rectum after sustaining trauma or undergoing an endoscopic or surgical procedure. Tetanus prophylaxis, intravenous antibiotics, and surgical intervention are indicated in all but superficial rectal tears.

Treatment of Constipation- This is a symptom that is not measurable scientifically. It has more emotional components than physical ones and should therefore be dealt with in a holistic manner.

It is important to determine whether the patient is complaining of infrequent defecation, excessive straining at defecation, abdominal pain or bloating, a general sense of malaise attributed to constipation, soiling, or a combination of symptoms. It is imperative to rule out any definable abnormality as a cause of the symptoms.

The treatment of constipation is multimodal. The patient should be reassured and asked to stop current

treatment for constipation, if any. The patient may be made aware of the need to recognize the call for stool, to attend to it forthwith, and to not to postpone it for any reason, and should be encouraged to adopt a regular defecation schedule.

Daily dietary fiber intake should be increased and bulking agents like ispaghula [psyllium], methyl cellulose, bran, karaya gum, and similar preparations that are useful in facilitation of the defecatory process should be prescribed.

Lactulose, sorbitol, and lactilol have minimal known side effects and are considered safe in pregnancy and for children. They may also be prescribed for elderly patients.

Senna, bisacodyl, sodium picosulfate, and magnesium salts should be used with caution as they can cause symptoms like bloating, colicky pain, and purging.

Low doses of polyethylene glycol and sodium phosphate may be used for intermittent lavage of the bowel.

Drugs like cisapride, mosapride, itiopride, and docusates are known to improve intestinal motility and may be prescribed for a prescribed duration.

Liquid paraffin is perhaps one of the most widely consumed oral laxatives. However, its long-term use could lead to reduced absorption of fat-soluble vitamins. Spontaneous leakage of liquid paraffin from the rectum and soiling have been reported.

For patients with intractable constipation behavioral techniques to modify pelvic floor and intestinal function are now being considered as the mainstay of therapy.

A combination of bowel training, dietary management, and regular exercise could possibly help achieve complete relief from the problem.

Treating various other pathologies - Proctitis is usually caused by sexually transmitted infections that can be treated with antibiotics. Pruritus ani due to fungal infections and hygiene problems is amenable to simple treatments. Thrombosed external hemorrhoids can be opened and drained. Perirectal or ischioanal abscesses require incision and drainage, sometimes under general anesthesia. Fulguration of polyps, rectal biopsy and the methods of rubber band ligation and infrared coagulation for removing hemorrhoids require no anesthesia. Anal fissures, warts and small fistulas can be removed with a minimal amount of anesthesia. Pilonidal cysts or

abscesses can also be incised and drained in this manner.

Extensive fistulas, unusually large hemorrhoids with a generalized prolapse of the mucosa and disorders involving high risk patients require management in well equipped hospitals.

Anorectal pathologies under special circumstances

Anorectal lesions in children- It is not uncommon to find children in a proctology clinic. They may present with congenital lesions like imperforate anus and its sequel, congenital megacolon or rectal polyps.

More frequently, children are brought in with symptoms of constipation, rectal prolapse, anal fissures, hemorrhoids, and pruritus ani. Rarely, they may present with anal abscesses and fistula.

Constipation is common in children. It is estimated that between 5% and 10% of pediatric patients have constipation. Constipation is the second most referred condition in pediatric gastroenterology practices, accounting for up to 25% of all visits (10). The diagnosis of constipation requires careful history taking and interpretation. Diagnostic tests are not often needed and are reserved for those who are severely affected. Infants and young children with chronic constipation and anal fissures often consume larger amounts of cow's milk than do children with a normal bowel habit (11). Additionally, a shorter duration of breastfeeding and early bottle-feeding with cow's milk are reported to be responsible for the development of constipation, which in turn may result in anal fissures in infants and young children.

The definitive therapy begins with rectal emptying of impacted stools followed by maintenance of regular soft stools to eliminate the fear of pain with defecation. This often requires prolonged support by physicians and parents, detailed counseling, explanation, medical treatment, and, most importantly, the child's cooperation.

The primary treatment of perianal abscess in childhood should involve a careful search for a coexisting fistula and treatment thereof by fistulotomy. Simple drainage of a perianal abscess is frequently followed by a fistula.

Anal fissures in children can be treated using stool softeners like lactulose, the use of anesthetic ointment and the maintenance of local hygiene. Topical glyceryl

trinitrate ointment has also been found to be effective in healing chronic anal fissures in children.

Rectal polyps and hemorrhoids require definitive treatment. Mucosal prolapse should be approached with a conservative attitude including the use of laxatives to avoid straining and strengthening of the pelvic musculature with biofeedback techniques. Injection of sclerosants in the prolapsing mucosa to induce fibrosis has also been found to be useful. Surgery is resorted to only in cases of intractable lesions or complete prolapse.

Managing anorectal pathologies during anti and postpartum periods- Anal fissure in women is a common lesion seen during the prenatal period. The symptoms may be exacerbated in a previously present lesion or may arise denovo. The most probable cause for these developments is terminal constipation, which itself may occur due to several factors.

Thrombosed external hemorrhoids and anal fissures may also cause severe discomfort during childbirth. While over 90% of thrombosed external hemorrhoids occur during the first day after delivery, the development of anal fissures may be seen in the first 2 months. The most important risk factor is dyschezia. Traumatic delivery is another precipitating factor. It is estimated that almost 10% of delivered women develop anal fissures. To summarize, almost one-third of pregnant women develop anal fissures and thrombosed external hemorrhoids after delivery (12). Managing constipation during and after gestation can minimize most anorectal lesions and their symptomatic outcome.

Anal fissures during the antepartum period may require a surgical procedure. The patient should be informed of the pros and cons of operative and nonoperative approaches, which can result in either therapeutic abortion or in timely surgery versus preserving the fetus. There is a need to prevent the unknown factor of delay in treatment resulting in an adverse outcome. Depending on the situation, there is necessarily a balance in favor of adopting a conservative approach. Yet the patient's ability to tolerate the symptoms of her condition should dictate the need for a definitive operative therapy.

Managing anorectal conditions in the elderly- Constipation, hemorrhoids with their complications, rectal prolapse and malignancy are common in the elderly.

Rectal bleeding can become life threatening in elderly patients. The increased prevalence of atherosclerosis, impaired general health, decreased mobility, and lack of physical activity aggravates the problems. Although hemorrhoids are the commonest cause of rectal bleeding, most patients over 40 presenting with this symptom should undergo a colonoscopy in order to screen for and treat premalignant polyps and colorectal cancer.

Hemorrhoidal thrombosis, rectal mucosal prolapse, anal fissures, and constipation should be dealt with using a conservative approach or the minimal possible surgical intervention. The potential risks of anesthetic and surgical complications should be carefully weighed against the benefits of the surgical procedures.

However, in such patients, the advantages of endoscopic, angiographic, or surgical intervention need not be withheld for reasons of age alone. The timing of tests and the type of intervention should be customized for weak and frail elderly patients. Such a decision should depend upon functional status, its impact on the outcome, and the consent process.

Role of 'hemorrhoid creams' or suppositories in proctology - Most of the creams or suppositories used in the treatment of hemorrhoids are directed at reducing the pain and containing the itching symptoms. The common ingredients of such creams are steroids, local anesthetics, and antipruritic agents.

Ointments containing opiates, xylocain, amethocain, and cinchocain to relieve pain, belladonna to alleviate sphincter spasm and silver nitrate to promote healing have all been in vogue for a long time. These mixtures are applied 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, a eutectic mixture of 5% prilocain and 5% lidocain or a combination of policresulen and cinchocain [Faktu by Ranbaxy Stancare - India] have shown good symptomatic relief of anal pain.

Topical nifedipine and isosorbide dinitrate ointment, which at present are used for the treatment of cardiovascular disorders, have been reported to be useful

in the treatment of anal fissures and acute strangulated internal hemorrhoids.

The best practice of using these preparations is to insert them over an anal dilator, which also helps relieve the sphincter spasm. Alternatively, emollient suppositories containing some of the above preparations can be used with identical results.

Possible complications with such ointments and creams are local and systemic allergy and loss of the anal dilator in the rectum. Nitroglycerine ointment is known to cause severe headache after application.

Another local application is ANUICE®, which is made of a hospital grade plastic and contains a coolant inside. This is placed in the freezer inside a special container and then the frozen applicator is directly applied over the swollen hemorrhoidal area. It is claimed that this relieves the painful discomfort of hemorrhoids by reducing the inflammation due to its cool numbing effect, which is popularly known as 'cryotherapy'.

Conclusion

Advances have been made in understanding the pathogenesis and management of various anorectal disorders. Each disorder is suggested by its characteristic history. A clinician who obtains a thorough history and performs a complete examination can accurately diagnose these disorders. Ancillary tests are helpful but are needed only occasionally.

If the techniques and management protocol of the symptoms discussed in this write up are meticulously followed, then most complaints can be effectively contained to the great satisfaction of patients.

Corresponding author:

Pravin J. GUPTA

Consulting Proctologist Gupta Nursing Home,

D/9, Laxminagar, NAGPUR- 440022 INDIA

e-mail: drpjpg_npg@sancharnet.in

drpjpg@yahoo.co.in

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