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EDITORIAL

What every gastroenterologist needs to know about common anorectal disorders

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Abstract

Anorectal complaints are very common and are caused by a variety of mostly benign anorectal disorders. Many anorectal conditions may be successfully treated by primary care physicians in the outpatient setting, but patients tend not to seek medical attention due to embarrassment or fear of cancer. As a result, patients frequently present with advanced disease after experiencing significant decreases in quality of life. A number of patients with anorectal complaints are referred to gastroenterologists. However, gastroenterologists' knowledge and experience in approaching these conditions may not be sufficient. This article can serve as a guide to gastroenterologists to recognize, evaluate, and manage medically or non-surgically common benign anorectal disorders, and to identify when surgical referrals are most prudent. A review of the current literature is performed to evaluate comprehensive clinical pearls and management guidelines for each topic. Topics reviewed include hemorrhoids, anal fissures, anorectal fistulas and abscesses, and pruritus ani.

Key words: Anal fissures; Anorectal disease; Anorectal fistulas and abscesses; Hemorrhoids; Pruritus ani

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INTRODUCTION

Anorectal complaints are very common and are mostly caused by benign anorectal disorders. Although many anorectal conditions are successfully treated by gastroenterologists in the outpatient setting, knowledgeable and skilled colorectal surgical interventions may be required. This article can serve as a guide to gastroenterologists in recognizing, evaluating, and managing common benign anorectal disorders, as well as identifying when surgical referrals are most prudent.

HEMORRHOIDS

The estimated prevalence rate of symptomatic hemorrhoids in the United States is 4.4% of the adult population; more than one million individuals annually are affected by hemorrhoidal conditions[1,2]. Hemorrhoids are cushions of nonpathologic vascular tissue in the anal canal, which microscopically are sinusoids because they do not have any muscle as do veins[3]. Hemorrhoidal tissue is thought to contribute to anal continence because 15%-20% of resting anal pressure derives from these cushions. Hemorrhoids may protect the sphincter during defecation, and could operate as plugs to permit the anus to completely close while at rest. Three main cushions are found in the left lateral, the right anterolateral, and the right posterolateral portions of the anal canal. The symptoms of hemorrhoidal disease are caused by pathologic and dilated changes in hemorrhoidal tissue.

Etiology

Proposed etiologic factors include vascular congestion and mucosal prolapse[4]. Vascular congestion could derive from prolonged straining or increased intra-abdominal pressure due to ascites, obesity, or pregnancy. Mucosal prolapse may develop secondary to derangement of the internal sphincter or through aging causing the anatomic structures supporting the muscularis submucosa to weaken, leading to prolapse of the hemorrhoidal tissue[5]. Multiple studies have shown elevated anal resting pressure in patients with hemorrhoids[1,6]. Whether the elevated resting pressure is caused by or is due to enlarged hemorrhoids is unknown, but resting tone does become normal after a hemorrhoidectomy.

Symptoms

Patients often self-refer with symptoms of itching, pain, or bleeding per the rectum. To the general population, anything problematic around the anus is suspected to be hemorrhoids. Internal hemorrhoids may prolapse or bleed, but rarely become painful unless they develop thrombosis or necrosis. Thus, anal pain usually suggests other pathology and mandates closer investigation. As many as 20% of patients with hemorrhoids have concomitant anal fissure(s). Usually, painless bright red bleeding that stains the water in the toilet occurs from internal hemorrhoids. This bleeding is arterial, from presinusoidal arterioles, and is mostly associated with bowel movements where the stool is itself brown. If rectal bleeding is not typical for hemorrhoidal bleeding as described, a prompt and thorough medical evaluation is warranted. Thrombosed external hemorrhoids may cause significant pain because the anoderm is richly innervated which is exactly why external hemorrhoids should not be ligated or excised without adequate local anesthetics. Skin tags are often confused with symptomatic hemorrhoids. A skin tag is redundant fibrotic skin at the anal verge, often persisting as the residual of a thrombosed external hemorrhoid. It is important to note that there is no increased risk of cancer in hemorrhoids.

Classification

Hemorrhoidal conditions are classified according to their location. External hemorrhoids are situated distal to the dentate line and are covered by anoderm that is sensitive to touch, temperature, and stretch because of innervation by somatic nerves. The dentate line is the junction of ectoderm and endoderm, and therefore represents an important mark between two distinct origins of venous and lymphatic drainage, nerve supply, and epithelial lining. Internal hemorrhoids are covered by columnar or transitional epithelium, are located proximal to the dentate line, and are graded based on the degree of the prolapse[7,8]. First-degree hemorrhoids may bleed and may bulge into the anal canal and may prolapse beyond the dentate line on straining. Second-degree hemorrhoids prolapse through the anus but spontaneously reduce. Third-degree hemorrhoids prolapse through the anal canal and require manual reduction. Fourth-degree hemorrhoids prolapse, but are irreducible, and thus are at risk for strangulation. However, most hemorrhoids are a combined type of internal and external hemorrhoids. Prognosis and treatment are mostly based on the classification.

Diagnosis

Patients who complain of hemorrhoids need a careful evaluation to exclude other conditions. Either the prone or the left lateral decubitus position can be used to evaluate the anal area, although the lateral position is easier for pregnant patients and those patients with severe chronic obstructive pulmonary disease. Digital, anoscopic, and sigmoidoscopic examination are important initial evaluations. A thorough examination of the anorectal area is required. Inspection is performed by gentle retraction of the buttocks. The color or condition of the skin should be examined for findings such as swelling, induration, fissure, draining sinuses, or mass. The sacrococcygeal region and the perianal skin should be examined. Palpation with a lubricated gloved index finger begins at the anal orifice, and then proceeds circumferentially around the anal canal through the lower rectum to identify any abscesses, tumors, or sphincter defects. Also, evaluating resting and/or squeezing anal pressures by asking the patient to squeeze will provide more information on the anal sphincter and the puborectalis muscle. Internal hemorrhoids are generally difficult to palpate unless thrombosed or very large. An anoscopy is done to visualize internal hemorrhoids, which bulge into the lumen of the anoscope when the patient strains. A full examination of the colon with a barium enema or colonoscopy is considered if there are no compatible findings of hemorrhoidal disease, especially in patients older than 40 years.

Treatment

Because hemorrhoids are a normal part of anorectal anatomy, treatment is only indicated if they become symptomatic. However, in the general management of hemorrhoids, colorectal surgeons agree that all painful thrombosed hemorrhoids (Figure 1) should be excised. Some patients present at a time after thrombosis when symptoms have actually begun to subside. Excision is not mandatory in these cases, especially in the absence of erosion or significant tenderness to touch. Initial medical management is recommended for all but the most advanced cases. As a conservative treatment, the almost-universal recommendations are to add dietary fiber[9], avoid straining during defecation, and to utilize sitz baths two to four times a day[10]. Although the available evidence to support the benefits of high fiber intake to manage and prevent hemorrhoids is limited, the use of high fiber is commonly recommended in clinical practice. Since fiber consumption can induce problems with abdominal bloating and pain, patients should start at a low dose of the fiber supplement and slowly increase the amount until reaching at least 20-30 g/d. Patients should be educated to

Figure 1 Thrombosed hemorrhoids.

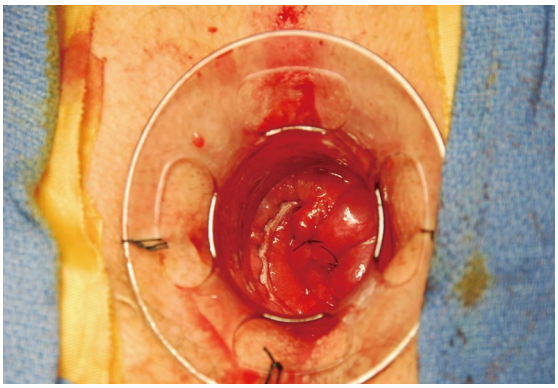

Figure 2 Procedure for prolapsing hemorrhoids (PPH).

drink plenty of water with fiber. Over-the-counter topical agents and suppositories have been used as the empirical treatment and can reduce some hemorrhoidal symptoms, but data supporting their effectiveness are lacking. Hemorrhoids that fail to respond to medical management may be treated with rubber band ligation, sclerosis, and thermotherapy by using infrared beam, electric current, CO_2 laser, or ultrasonic energy. These local techniques induce scarring and fixation of the hemorrhoids to the underlying tissues. These procedures are usually performed in the office setting, do not require anesthesia, and are mostly applied for second degree and some third-degree prolapsed hemorrhoids. Infrared photocoagulation works well on small bleeding hemorrhoids, but is less effective on large or bulky hemorrhoids. Infrared radiation, generated by a tungsten-halogen lamp, creates heat and thus leads to inflammation and later scarring of the tissue. Most authors report only infrequent complications to infrared treatments. Rubber band ligation has been demonstrated to be the most effective method to treat symptomatic internal hemorrhoids that have failed to respond to conservative management[11-14]. Controversy exists as to how many hemorrhoidal bundles can be effectively and safely banded at one time[15]. Complications associated with this procedure are not frequent (< 2%) and include vasovagal response, anal pain, bleeding from early dislodgment, and pelvic sepsis[16,17]. Operative hemorrhoidectomy is reserved for the large third- and fourth-degree hemorrhoids, mixed hemorrhoids with a prominent external component, and incarcerated internal hemorrhoids requiring urgent intervention. The hemorrhoidal tissue is excised, and the mucosal and skin defect may be left open as an open hemorrhoidectomy, may be partially closed, or may be closed with a running suture. Several randomized trials have compared different types of hemorrhoidectomies with a variety of open[18-20] and closed techniques with inconsistent results[20,21]. Similarly, a variety of techniques have been introduced to reduce postoperative pain. The stapled hemorrhoidopexy, also called Procedure for Prolapse and Hemorrhoids (PPH, Figure 2), is a technique that reduces the prolapse of hemorrhoidal tissue by using an intraluminal circular stapling device to remove a ring of redundant mucosa and submucosa from the upper anal canal, thereby reducing the prolapsing hemorrhoidal tissue back into the anal canal and fixing it into position. The hemorrhoidal inflow that transverses the excised segment is also interrupted, thus decreasing vascularity. Compared to conventional hemorrhoidectomy, PPH affects few nerve endings, which results in less post-operative pain. The ultrasonic scalpel hemorrhoidectomy and the bipolar sealing and cutting device have also been reported to produce less postoperative pain than conventional excisional hemorrhoidectomy[18,19,22,23]. However, long-term efficacy needs to be determined[21,24].

ANAL FISSURES

An anal fissure is a cut or split in the epithelial lining of the anal canal distal to the dentate line. A chronic anal fissure is usually categorized when the fissure fails to heal within 6-8 wk. Chronic fissures develop ulceration and heaped-up edges with exposure of the internal anal sphincter fiber at the base of the ulcer. There is often an associated external skin tag and/or an internal hypertrophied anal papilla. The vast majority of anal fissures occur in the posterior midline, while 10% to 15% occur in the anterior midline[25] and less than 1% of fissures occur in lateral positions.

Differential diagnosis

If an anal fissure develops in atypical locations, one must consider other diseases. Crohn's disease is the most common cause of anal fissures associated with atypical locations, although other inflammatory bowel diseases, syphilis, tuberculosis, leukemia, cancer, and human immunodeficiency virus (HIV) are also known causes[26,27].

Symptoms

Anal fissures are the most common causes of severe anorectal pain. Characteristic symptoms include tearing pain with defecation and hematochezia that is usually present as blood on the toilet paper. Patients may also complain of a sensation of intensely painful anal spasms lasting for several hours after a bowel movement.

Diagnosis

Anal fissures can be diagnosed through history and physical examination.

Figure 3 Anal fissure.

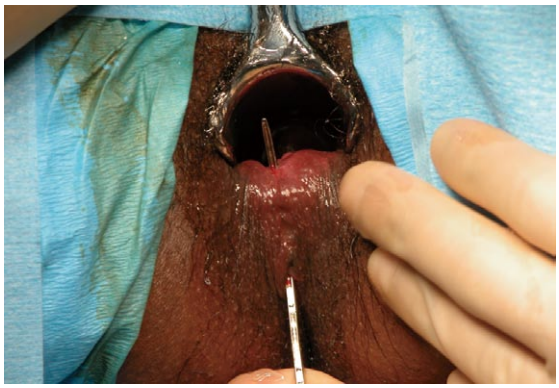

Figure 4 Anal fistula.

Gentle spreading of the buttocks to expose the perianal area may facilitate the examination. The fissure is easily seen in the anal canal (Figure 3). Some patients may experience extreme physical discomfort during examination and may require anesthesia. Digital or anoscopic examination may be poorly tolerated on the initial visit.

Pathophysiology

Although the etiology of this condition is uncertain, the main hypothesis is that the posterior midline area may have decreased blood flow due to the configuration of the vessels of the anus[28]. Also, spasm of the internal anal sphincter may cause further reduction in blood flow to the posterior anal canal. Trauma from such factors as hard stools can aggravate the condition, and then eventually cause fissures. Once a tear occurs, it begins a cycle of pain, with increased contraction of the internal anal sphincter, thereby increasing pressure in the anal canal, which results in ischemia[29]. This cycle contributes to the development of a poorly healing wound that becomes a chronic fissure. Patients with chronic anal fissures also appear to have increased resting pressure in the anus per anal manometry[29,30].

Treatment

Medical therapy leads to healing in the vast majority of patients with acute anal fissures, and almost half of the patients with chronic fissures[31]. Therapy focuses on breaking the cycle of pain, spasm, and ischemia thought responsible for the development of the fissure. Initial conservative measures have consisted of three components: relaxation of the internal sphincter; institution and maintenance of atraumatic passage of stool; and pain relief. These goals can be accomplished with bulk agents and stool softeners, and warm sitz baths following bowel movements to relax the sphincter[32,33]. Warm sitz baths (not to exceed 120°F) may ease the acute pain in the anal area. The patient should undergo two to three sitz baths a day, especially after bowel movements, for about 10-15 min each session in a warm bath. After a sitz bath, the anal area should be carefully dried with a towel or a hair dryer with cool air. A significant reduction in anal pressure after soaking in warm water has been reported[34]. Based on the theory that anal fissures are caused by ischemia through a spasmodic internal sphincter, pharmacological agents including glyceryl trinitrate (GTN)[35-37], diltiazem[35,38-40], and botulinum toxin may be useful. These agents have been employed to reduce the resting anal canal pressure and to improve blood flow, and as an alternative to surgical sphincterotomy for chronic fissures. GTN ointment applied two to four times per day to the anus has been the most extensively studied, resulting in various healing rates and the identification of a major side effect in dose-related headaches[36]. A randomized, controlled trial has shown that 0.2% nitroglycerin ointment applied twice daily healed chronic ulcers (68% compared with 8% in the placebo group) with evidence of a reduction in resting anal pressure and an increase in anoderm blood flow after eight weeks of treatment[37]. Diltiazem ointment (2%) appears to have similar efficacy to GTN, but may cause fewer side effects (headaches and gastrointestinal side effects) than GTN. Diltiazem maybe associated with the development of pruritus. Both diltiazem and GTN would be first-line therapies, while botulinum toxin is used as rescue treatment[41-44]. Botulinum toxin causes temporary muscle paralysis by preventing acetylcholine release from presynaptic nerve terminals, thereby decreasing the pressure in the internal sphincter[41,45]. The healing rate of anal fissures ranges from 60%-70% after a single injection of 15 or 20 U of the toxin[45,46]. One prospective randomized study showed that botulinum toxin had a better healing rate compared to 0.2% GTN ointment[47]. It may be beneficial to repeat the injection of botulinum toxin for patients with recurrent fissures[48,49]. There is no conclusion on the optimal dose of the toxin, the number of injections, or the precise site of injection. Despite relatively good efficacy, medical therapy has some limitations with poor compliance, unpleasant side effects, and recurrence of the fissure[35,43,50,51]. Surgical treatment is generally reserved for fissures that have failed medical therapy. A recent meta-analysis of four randomized, controlled trials revealed superior fissure healing rates with lateral internal sphincterotomy compared with topical nitroglycerin[52]. Lateral internal sphincterotomy is the procedure of choice for the majority of surgeons[53]. The aim of this procedure is to decrease spasms of the internal sphincter by dividing a portion of the

muscle. Depending on the preference of the surgeon, approximately 30% of the internal sphincter fibers are divided laterally by using either open or closed techniques. Although healing is achieved in more than 95% of patients and most patients experience immediate pain relief with overall satisfaction, most surgeons are reluctant to use this treatment as first-line therapy for chronic anal fissures due to possible postoperative incontinence. Persistent minor incontinence, which generally does not have a major impact on quality of life, has been reported as occurring in 1.2% to 35% in various studies[25,52,54-57]. However, several studies have also demonstrated no significant difference in minor fecal incontinence between sphincterotomy and topical nitroglycerin treatments[52,58,59]. A prospective randomized controlled trial with long-term follow-up and a large number of patients will be required to support lateral internal sphincterotomy as a first-line therapy.

ANAL FISTULAS AND ANAL ABSCESSES

"Fistula" means pipe or tube in Latin. An anal fistula is an abnormal connection between two epithelial-lined spaces of the anus and rectum, creating the appearance of a pipe or tube. Anal abscesses and fistulas are the acute and chronic manifestations of the same perirectal pathogenic process. The majority of these conditions originate from infected anal glands. Anal fistulas are classified by Parks and colleagues[60], as intersphincteric, trans-sphincteric, suprasphincteric, and extrasphincteric fistula-in-ano. An in-depth understanding of anorectal anatomy is essential to successfully treat an anorectal abscess or fistula.

Symptoms

The patient may complain of drainage, bleeding, pain with defecation or sexual activity, swelling, or diarrhea. Fistulas may be related to other diseases such as Crohn's disease, proctitis, or anorectal cancer.

Diagnosis

Physical examination may reveal the external opening as a protrusion or an induration, which drains pus. The importance of accurately characterizing the fistula tract (Figure 4) prior to therapy can not be overemphasized. The risk of incomplete healing, a recurrent fistula, or even inadvertent sphincter injury is increased if fistula anatomy is incorrectly delineated or an occult abscess is missed. Several imaging modalities are available to evaluate perianal fistulas and abscesses. Although correlation varies in the literature between 45%-95%, according to Goodsall's rule, an imaginary transverse line should be drawn across the anus. External lesions seen anterior to this line run directly from the anal canal. If the external opening is detected posterior to this line, the fistula is more complex and tracks laterally around the anus prior to a midline posterior opening. Bidigital examination, with the index finger in the anal canal and the thumb exterior to it, may enable identification of the fistulous track as a cord-like lesion under the skin. Endoscopy may detect the internal opening. Other methods include; passing a probe; injection of a dye such as hydrogen peroxide (H_2O_2), milk, or methylene blue; fistulography; anal ultrasound with H_2O_2 injection; and magnetic resonance imaging (MRI). Several studies have concluded that MRI and anorectal endosonography (EUS) are accurate means of delineating anatomy in relation to a fistula[61]. EUS is easily performed and less expensive than MRI, but it is not appropriate for the patient with severe anal pain or an anatomical stricture. Adopting endoanal coils and phased array imaging has contributed to the evolution of using MRI to evaluate anorectal disease[61-64]. The exact choice of which modality to use depends on local expertise, cost, and the available equipment.

Management

The principal management is surgery. Anal abscesses should always be drained in a timely manner. Delayed or inadequate treatment may occasionally cause extensive or life-threatening suppuration with massive tissue necrosis and septicemia.

Thus, an early referral to a specialist is recommended. The goals of surgical therapy are to remove the fistula tract while preserving fecal continence. The surgical approach depends upon the type of fistula. Simple intersphincteric fistulas can be treated by fistulotomy (opening of the fistula tract). High transsphincteric and supraphincteric fistulas are more safely treated by initial placement of a seton[65]. The seton is a foreign material placed through the fistula tract which is tightened at regular intervals until it eventually cuts through the sphincter. There are different types and seton techniques used in anorectal surgery[66-70]. The slow division of the anal sphincter with the simultaneous fibrosis allows the fistula tract to be more superficial and to re-establish continuity of the anorectal ring while preventing wide separation of the anal sphincter[66,71]. The literature has reported a 2%-8% recurrence rate following treatment with cutting setons. The rate of fecal incontinence following this procedure has been reported to be about 60%, but it is mostly minor incontinence to flatus; major incontinence to solid stool is 2%-3%. An anorectal advancement flap has been advocated for complicated and multiple fistulas including for patients with inflammatory disease and high transsphincteric or suprasphincteric fistulas[72,73]. Anal sphincter injury is the main morbidity after surgical management of anal fistulas. Fibrin glue has been used for the eradication of fistulas to reduce complications following surgical procedures[74-76]. However, fibrin glue should only be used as second or third line treatment because of the conflicting success rate of closing the fistulas (range = 30%-85%) and a high recurrence rate of up to 59%[77]. Its advantages as an acceptable alternative to conventional surgery are low morbidity, simplicity, and repeatability, especially in treating complex fistulas[78,79]. A relatively new treatment using a biodegradable "collagen plug" has been adopted to treat complex, high, and recurrent anorectal fistulas. Although the fistula

Table 1 Etiologies of pruritus ani

Anorectal disease	Anal fistula, fissure, skin tags, hemorrhoids, rectal prolapse, anal papillomas, rectal and anal carcinoma, fecal incontinence, hidradenitis
Systemic disease	Diabetes mellitus, chronic renal failure, iron deficiency, thyrotoxicosis, myxedema, Hodgkin's lymphoma, jaundice, leukemia, aplastic anemia
Dermatologic conditions	Psoriasis, erythrasma, seborrheic dermatitis, atropic dematitis, intertrigo
Infections	Virus, bacteria, fungi, parasites
Gynecologic conditions	Vaginitis, endocervicitis
Neoplasms	Extramammary Paget's disease, squamous cell carcinoma, cloacogenic carcinoma, Bowen's disease
Hygiene	Poor cleansing or overaggressive cleansing with rubbing or excessive soap use
Diet	Coffee, chocolate, citrus, spicy foods, tea, beer, sodas containing caffeine, fat substitutes, milk and milk products
Local irritants	Obesity, excessive hair, tight-fitting clothing, anal creases, perfumed or dyed toilet paper, anal creams
Diarrheal states	Ulcerative colitis, crohn's disease, irritable bowel syndrome
Radiation	Postirradiation changes
Psychogenic	Anxiety, neuroses, psychoses
Drugs: Idiopathic	Quinidine, colchicine, antibiotics, ointments that may contain alcohol

Table 2 Instructions for patients

Do not scratch or rub the anal area
Wash the anal area with only water. Do not use soap or salt when you wash the anal area. Dry the area well after cleaning, by patting the skin with a soft towel or using a hair dryer with cool air
Make sure to clean the anal area after each bowel movement as instructed. Avoid the use of toilet paper that may be abrasive
When you shower or bathe, use unscented soap
Apply a thin cotton pledget directly in the anal crease in the morning and at bedtime, and change the pledget as needed if it becomes moist
Wear loose underwear
Soak the anal area in a warm sitz bath for 10 to 15 min two to three times a day. Do not add soaps, salt, oil, or skin softners to the water, and dry the anal area as above
Maintain a soft, large and nonirritating stool by having bulking agents such as psyllium or methylcellulose in 8-12 oz of water. Start at a low dose of the fiber supplement and slowly increase the amount of fiber until reaching at least 20-30 g/d
Eat a high fiber diet that includes 8-10 glasses of water a day
Avoid foods that include colas, spicy foods, citrus foods, coffee, beer, nuts, dairy products, tomatoes
You may apply 0.5% or 1% hydrocortisone ointment to the itch area, but only if directed by your doctor, and antihistamine tablets may be helpful for nighttime symptoms
Don't be despondent when recurrence occurs because it is common. Reconsult your doctor so that appropriate management can be applied

closure rate was inconsistent, the collagen plug might be a promising alternative for complex and high anorectal fistulas because it is minimally invasive and can be used repeatedly without damaging the anal sphincter[80,81]. However, large randomized controlled trials with long-term follow up are required to assess the value of this treatment.

Anal fistulas complicated by Crohn's disease are challenging because surgical treatment is associated with poor and delayed wound healing and the high risk of incontinence. Therefore, anal fistulas in this group should be initially managed with medical therapy that includes sitz baths, metronidazole, or IV infliximab, a tumor necrosis factor-α inhibitor[82].

PRURITUS ANI

Pruritus ani is a symptom complex, not a disease. It is a common but socially embarrassing condition. The word "pruritus" originated from the Latin word prurire, which means "to itch," and refers to an unpleasant cutaneous sensation. Thus, patients develop a nearly uncontrollable desire to scratch[83]. Excessive rubbing or scratching of the skin results in maceration, superinfection, and a decrease in thickness of the fatty skin layer, which exacerbates the problem and leads to hypertrophy of the epidermis and lichenification. Pruritus ani affects 1%-5% of the adult population[83], not uncommonly occurs in adolescents and the elderly, and is more prevalent in men than women[84].

Etiology

Pruritus ani is classified when it has an identifiable etiology that may include numerous anorectal diseases, other systemic diseases, transient internal sphincter relaxation, an exaggerated rectoanal inhibitory reflex, poor hygiene, overaggressive cleansing, and local irritants (Table 1)[85-90]. However, in more than one half of patients with pruritus ani the cause is categorized as idiopathic.

Diagnosis

A variety of possible etiologic factors challenge the physician to approach the correct diagnosis and institute the appropriate management. A detailed history and close physical examination can often help in the identification of pruritus. Inspection, palpation, and anoscopic examination should be performed on the initial visit. Scrapings to exclude fungal and yeast infection may be helpful. Perianal skin biopsy may be useful in

suspicious skin lesions or severe cases. Some publications recommend sigmoidoscopy or colonoscopy to evaluate inflammatory bowel disease and colorectal neoplasms[88].

Treatment

Management is nonsurgical, thus should be aimed at the underlying cause; there is very rarely any reason for surgical referral. Appropriate follow-up care is necessary for therapeutic success. The goal to achieve success with patients who have no identifiable etiology is to maintain the perianal skin clean, dry, and slightly acidic. However, aggressive cleaning of the perianal area with alkaline soaps leads to chronic pruritus[88]. The vast majority of patients with pruritus ani can be treated by conservative management[89,91]. Instructions for patients, well described by Hicks and colleagues (Table 2)[88], are removal of irritants, improving perianal hygiene[92], avoiding scratching, wearing loose cotton underwear, adjusting the diet by adding a bulking agent to induce soft and non-irritating stools, and discontinuing offending agents, such as coffee, tea, cola, beer, chocolate, and tomatoes[88]. Hydrocortisone ointment 0.5 to 1.0% can provide symptomatic relief of idiopathic pruritus ani, but should not be used for prolonged periods of time because of dermal atrophy. Skin barriers such as topical zinc oxide, can also provide some relief. Nighttime sedating antihistamines or tricyclic antidepressants may be helpful. Refractory patients with intractable symptoms should be referred to a dermatologist[91]. Various therapies have been used with inconsistent results or insufficient data to judge efficacy, such as injection of methylene blue, surgical debridement, radiation therapy, ultraviolet phototherapy, cryotherapy, and intralesional corticosteroids[93-96].

CONCLUSION

Although most anorectal conditions are benign, knowledgeable and skilled physician intervention is often required. Understanding the pathophysiology of anorectal disease guides treatment selection. Initiating early appropriate treatments should lead to prompt symptomatic resolution in a cost-effective manner. A subgroup of patients who persistently present with symptoms despite applicable conservative or non-surgical management should be referred to a colorectal surgeon.

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