

# World Journal of *Gastrointestinal Endoscopy*

*World J Gastrointest Endosc* 2024 March 16; 16(3): 98-177



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The WJGE is now abstracted and indexed in Emerging Sources Citation Index (Web of Science), PubMed, PubMed Central, Reference Citation Analysis, China Science and Technology Journal Database, and Superstar Journals Database. The 2023 Edition of Journal Citation Reports® cites the 2022 impact factor (IF) for WJGE as 2.0; IF without journal self cites: 1.9; 5-year IF: 3.3; Journal Citation Indicator: 0.28.

**RESPONSIBLE EDITORS FOR THIS ISSUE**

Production Editor: Yi-Xuan Cai; Production Department Director: Xu Guo; Cover Editor: Jia-Ping Yan.

**NAME OF JOURNAL**

*World Journal of Gastrointestinal Endoscopy*

**ISSN**

ISSN 1948-5190 (online)

**LAUNCH DATE**

October 15, 2009

**FREQUENCY**

Monthly

**EDITORS-IN-CHIEF**

Anastasios Koulaouzidis, Bing Hu, Sang Chul Lee, JooYoung Cho

**EDITORIAL BOARD MEMBERS**

<https://www.wjgnet.com/1948-5190/editorialboard.htm>

**PUBLICATION DATE**

March 16, 2024

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**PUBLISHING PARTNER**

Digestive Endoscopy Center of West China Hospital, SCU

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**ARTICLE PROCESSING CHARGE**

<https://www.wjgnet.com/bpg/gerinfo/242>

**STEPS FOR SUBMITTING MANUSCRIPTS**

<https://www.wjgnet.com/bpg/GerInfo/239>

**ONLINE SUBMISSION**

<https://www.f6publishing.com>

**PUBLISHING PARTNER's OFFICIAL WEBSITE**

<http://www.cd120.com/index.html>



## Anal pruritus: Don't look away

Andreia Albuquerque

**Specialty type:** Gastroenterology and hepatology

**Provenance and peer review:** Invited article; Externally peer reviewed.

**Peer-review model:** Single blind

**Peer-review report's scientific quality classification**

Grade A (Excellent): 0  
Grade B (Very good): 0  
Grade C (Good): C  
Grade D (Fair): 0  
Grade E (Poor): 0

**P-Reviewer:** Nakamura K, Japan

**Received:** January 2, 2024

**Peer-review started:** January 2, 2024

**First decision:** January 16, 2024

**Revised:** January 16, 2024

**Accepted:** February 6, 2024

**Article in press:** February 6, 2024

**Published online:** March 16, 2024



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### Abstract

Anal pruritus is a common anorectal symptom that can significantly impair a patient's quality of life, including their mental health. It can be one of the most difficult proctological conditions to treat. Patients often delay seeking medical attention, since it is an embarrassing but non-life-threatening situation. Pruritus ani can be associated with idiopathic and secondary causes, such as anorectal diseases, cancer (anal or colorectal), dermatological and sexually transmitted diseases, fungal infections and systemic diseases. If patients are referred for a colonoscopy, this can sometimes provide the first opportunity to evaluate the perianal area. Classifications of anal pruritus are based on the abnormalities of the perianal skin, one of the most commonly used being the Washington classification. A proper digital anorectal examination is important, as well as an anoscopy to help to exclude anorectal diseases or suspicious masses. Endoscopists should be aware of the common etiologies, and classification of the perianal area abnormalities should be provided in the colonoscopy report. Information on treatment possibilities and follow-up can also be provided. The treatment normally consists of a triple approach: proper hygiene, elimination of irritants, and skin care and protection. Several topical therapies have been described as possible treatments, including steroids, capsaicin, tacrolimus and methylene blue intradermal injections.

**Key Words:** Anal pruritus; Colonoscopy; Washington classification; Hemorrhoids; Fissure; Cancer

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**Core Tip:** Anal pruritus is a common anorectal symptom that can significantly impair a patient's quality of life. Endoscopists should be aware of the possible etiologies, including anorectal diseases and anal or colorectal cancer. Classifications of anal pruritus are based on the abnormalities of the perianal skin. It is important to carry out a proper digital anorectal examination and an anoscopy in these patients.

**Citation:** Albuquerque A. Anal pruritus: Don't look away. *World J Gastrointest Endosc* 2024; 16(3): 112-116

**URL:** <https://www.wjgnet.com/1948-5190/full/v16/i3/112.htm>

**DOI:** <https://dx.doi.org/10.4253/wjge.v16.i3.112>

## INTRODUCTION

Anal pruritus is a common anorectal condition, and it is estimated that it affects between 1% to 5% of the population at some point in their lives[1]. It is an embarrassing condition, which can impair a patient's quality of life[2,3]. Anal pruritus can also have a negative effect on a patient's mental health[4].

Idiopathic pruritus is generally considered to be associated with fecal contamination of the skin, which initiates a vicious cycle of itching and scratching[3,5]. This results in skin maceration and a decrease in thickness of the fatty skin layer with hypertrophy and lichenification[3,5]. There are also several secondary causes that might be associated with anal pruritus[6]. Benign and malignant anorectal conditions such as hemorrhoids, fissures, fistulas, rectal prolapse, condylomas, Crohn's disease, squamous cell carcinoma, colorectal cancer, Paget's disease and melanoma are all possible secondary causes[6,7]. Hemorrhoids and anal fissures are the most common anorectal diseases associated with pruritus[8]. Dermatological and sexually transmitted diseases, fungal infections and systemic diseases such as diabetes mellitus, lymphoma, renal failure, hyperthyroidism disorders or iron deficiency anemia can also be associated[6,7].

A prospective two-year study, including 109 patients with anal pruritus as the only presenting complaint[8], showed that 35% of the patients had an abnormal proctosigmoidoscopy or colonoscopy. In total, 11% of patients had rectal cancer, while 5% had anal cancer and 2% had colon cancer. The duration of the pruritic symptoms and an age greater than 50 years were risk factors for a diagnosis of a neoplasm[8].

Patients with anal pruritus may be referred for a colonoscopy for several reasons, some unrelated to this condition, or to exclude a possible secondary cause. Endoscopists should start by conducting a proper examination of the perianal area, looking for erythema, fissures, ulceration or lichenified skin. The Washington classification is based on the appearance of the perianal area and can be provided in the examination report: stage 0 is normal skin; stage 1 is erythematous and inflamed skin (Figure 1); stage 2 is lichenified skin (Figure 2); and stage 3 is lichenified, coarse skin often with ulcerations (Figure 3)[9]. Endoscopists should also look for other conditions that might be associated, such as hemorrhoids or fissures. A proper anorectal digital examination should then be performed, with a search for suspicious masses. If possible, this should be followed by an anoscopy[7]. This detailed examination of the perianal area, combined with digital anorectal examination and an anoscopy, will allow a correct evaluation and classification of the situation, and should exclude anorectal diseases that might be associated with anal pruritus. It should be carried out before colonoscopy.

Treatment normally consists of a triple approach: Proper hygiene, elimination of irritants, and skin care and protection[6]. The area should be always clean and dry, avoiding overwiping, soaps, lotions and wet wipes that cause irritation[6]. Some foods and drinks should be avoided, such as coffee, tea, beer, chocolate, citrus fruits, cola, dairy products, and spicy foods (Figure 4A and B)[6].

A randomized control trial of 1% hydrocortisone ointment or placebo for 2 wk followed by the opposite treatment for a further 2-wk period, with a washout period of 2 wk between treatments, showed that treatment with 1% hydrocortisone ointment resulted in a 68% reduction in a visual analogue score compared with placebo[10]. Long-term topical steroids should be avoided as they cause skin atrophy and rebound symptoms after withdrawal[3,5].

A randomized control trial compared topical capsaicin 0.006% and placebo for idiopathic intractable pruritus ani for four weeks 3 times a day and showed that 31 of the 44 patients improved with capsaicin[11]. There were 4 patients who dropped out of capsaicin treatment because of side effects, three patients due to perianal burning and one due to urticaria. This substance seems to act by reducing the synthesis, storage, transport, and release of substance P, a neuropeptide that is a mediator of itching[11].

A recent meta-analysis and systematic review has evaluated the efficacy and safety of methylene blue injection for intractable idiopathic pruritus ani and included 7 studies with 225 patients[12]. This seemed to be a relatively efficacious therapy, but higher quality studies are necessary, including randomized control trials. Methylene blue destroys the intra-dermal nerve endings[13]. Skin necrosis was reported as a possible complication when large volumes were injected[13]. Temporary staining of the skin, perianal area numbness and transient fecal incontinence can occur as side effects[12].

A randomized, double-blind, placebo-controlled clinical trial, including 21 patients with intractable idiopathic pruritus ani treated with tacrolimus 0.1% ointment, showed a significant positive effect of tacrolimus in reducing pruritus intensity and frequency, with symptom reduction in 68% of the patients 2 wk after treatment[14].

A case report has also described a case of a man with long-term anogenital pruritus that was refractory to multiple therapies and that responded to dupilumab, an interleukin-4 receptor alpha blocker[15].



Figure 1 Erythema in the perianal area (stage 1 Washington classification).



Figure 2 Lichenified skin (stage 2 Washington classification).

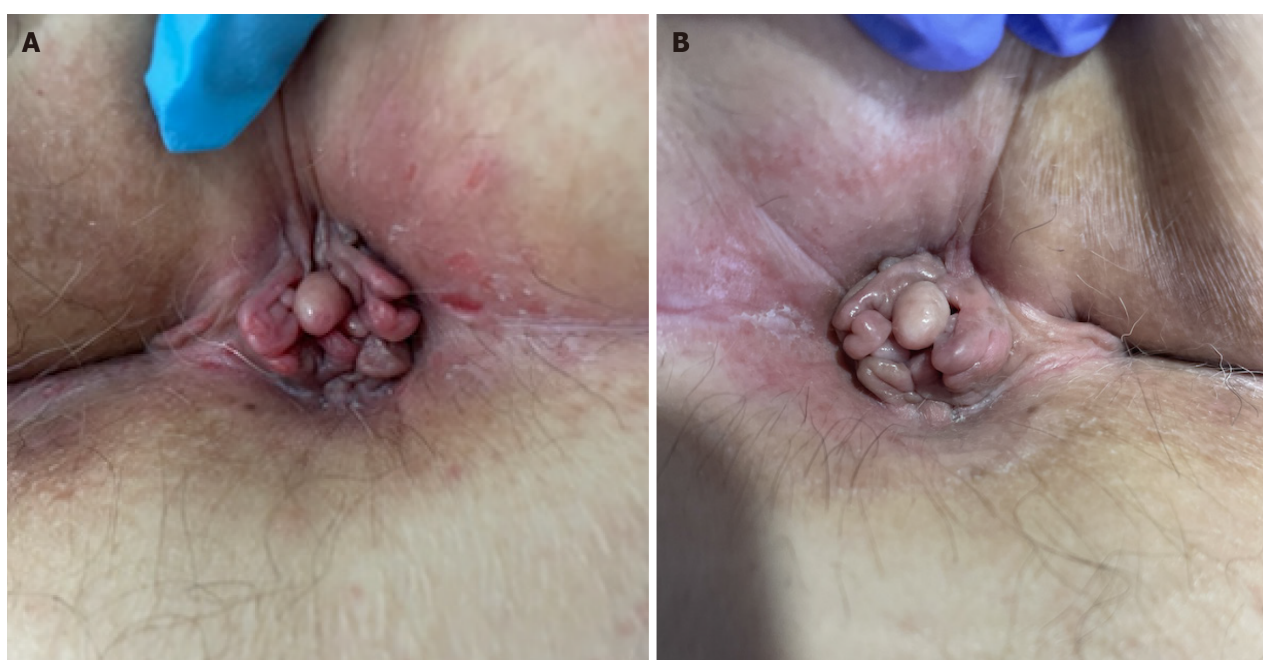
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## CONCLUSION

Anal pruritus is a common anorectal condition that can either be idiopathic or have secondary etiologies, including anorectal diseases or even malignancies. It is important to conduct a detailed examination of the perianal area, a proper digital anorectal examination and an anoscopy. For treatment it is important to promote correct hygiene, the elimination of irritants and skin care. Several topical therapies have been described, including steroids, capsaicin, tacrolimus and methylene blue intradermal injections.



**Figure 3** Severe lichenified skin with ulcerations (stage 3 Washington classification).



**Figure 4** Initial evaluation and follow-up after treatment. A: In a woman with anal pruritus, observation revealed skin tags and lichenified skin with small ulcerations of the perianal area; B: One month after treatment (proper hygiene, elimination of irritants and topical capsaicin 0.006%) anal pruritus resolved with improvement of the perianal area.

## FOOTNOTES

**Author contributions:** Albuquerque A had the article idea, conducted the literature search, wrote the manuscript and was responsible for the submission.

**Conflict-of-interest statement:** All authors have no conflicts of interest to disclose.

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**S-Editor:** Liu JH

**L-Editor:** A

**P-Editor:** Zhao YQ

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