

The background of the cover is an endoscopic image showing the mucosal lining of the colon. The tissue is reddish and appears inflamed, with some areas of ulceration and irregular, friable mucosa, characteristic of radiation proctitis. The lighting is somewhat uneven, with brighter areas and darker shadows, highlighting the texture and color changes of the diseased tissue.

The

GASTROLAB

Endoscopic Image

JOURNAL

Nr 28 October 22, 2024

**Proctitis caused by
Radiation**



The GASTROLAB Endoscopy Image JOURNAL: A Pinnacle in Medical Imaging Excellence

Since its inception in early 2024, The GASTROLAB Endoscopy Image Journal stands as a pioneering publication in the realm of medical imaging. Released every Tuesday, this weekly magazine, accessible at www.vpress.ovh/journal.htm, offers an unparalleled exploration of various themes, showcasing high-quality images focusing on specific aspects of the digestive tract or diseases.

A Global Beacon of Endoscopic Excellence

With an ambitious vision, we aspire for The GASTROLAB Endoscopy Image JOURNAL to be recognized as the preeminent publication in its field worldwide. We invite collaboration from the esteemed medical community to contribute their exceptional endoscopic images, thereby fostering a collective effort to make this journal the most comprehensive of its kind globally.

We encourage individuals possessing noteworthy endoscopic images to submit them to glabinfo@gmail.com. Please include a brief caption, a clear indication of permission for publication on our site, and specify whether a copyright sign and your email address should accompany the images. This ensures potential commercial publishers can seek permission directly from contributors for any intended use.

Partner with Excellence: Science Photo Library

For those seeking to publish images featured in our journal, we recommend reaching out to Science Photo Library

<https://www.sciencephoto.com/contributor/gas+h9b>

the foremost provider of science images. Their expertise ensures proper dissemination and ethical usage of all images in this journal.

Support Our Mission

If you wish to support The GASTROLAB Endoscopy Image Journal through advertisements or other means, kindly contact us at glabinfo@gmail.com. Your support not only facilitates the continuation of this vital resource but also contributes to the success of budding endoscopists worldwide.

A Noble Purpose

Under the editorial leadership of Hans Björknäs, our Editor-in-Chief, The GASTROLAB Endoscopy Image Journal seeks to be more than just a publication; it aims to be a catalyst for success. If this magazine aids even one young, aspiring endoscopist in their career journey, we consider our mission accomplished.

Join us in shaping the future of endoscopy imaging – together, let's create a benchmark of excellence in medical journalism.

Sincerely,

Hans Bjorknas

Editor-in-Chief, The GASTROLAB Endoscopy Image Journal

The GASTROLAB JOURNAL

Koulukatu 37 B 7

65100 Vaasa

FINLAND

Phone: +358-40-5462455

Email: glabinfo@gmail.com

Web: www.vpress.ovh/journal.htm

www.gastrolab.net





Proctitis Caused by Radiation Therapy: A Clinical Overview

Proctitis is an inflammation of the rectal mucosa that can manifest as a significant complication of radiation therapy, particularly for cancers in the pelvic region such as rectal, prostate, cervical, or bladder cancer. Although radiation therapy is an effective treatment modality for malignancies, it poses risks to surrounding healthy tissues. This essay explores the causes, symptoms, diagnosis, management, and preventive strategies for proctitis caused by radiation therapy.

Causes and Pathophysiology

Radiation-induced proctitis occurs when the rectal tissues are exposed to ionizing radiation during cancer treatment. The condition arises due to the collateral damage to the rapidly dividing epithelial cells lining the rectum, disrupting their integrity. Damage to the vascular endothelium and subsequent fibrosis exacerbate

the condition, leading to chronic hypoxia and tissue inflammation.

The risk of proctitis increases with higher radiation doses, concurrent chemotherapy, and certain predisposing factors such as a history of inflammatory bowel disease or prior pelvic surgeries. The condition can be classified into acute radiation proctitis and chronic radiation proctitis based on the timing of symptom onset.

Symptoms and Clinical Presentation

Acute Radiation Proctitis
Acute symptoms typically appear within days to weeks after the initiation of radiation therapy. They are predominantly due to epithelial damage and inflammation. Common symptoms include:

Diarrhea
Tenesmus (a sensation of incomplete evacuation)
Rectal pain or discomfort
Mucus discharge or mild bleeding
Chronic Radiation Proctitis
Chronic symptoms may manifest months to years

after radiation therapy and are often related to fibrosis, ischemia, and long-term damage to the rectal tissue. Symptoms can include:

Persistent rectal bleeding due to telangiectasia (fragile blood vessels)
Strictures causing constipation or bowel obstruction
Fistula formation or incontinence in severe cases
Diagnosis
The diagnosis of radiation-induced proctitis involves a combination of clinical history, physical examination, and diagnostic tests:

Clinical History: A detailed account of prior radiation therapy, the dose administered, and symptom onset.

Endoscopy: Sigmoidoscopy or colonoscopy can reveal characteristic findings such as mucosal erythema, ulcerations, or telangiectasia. Biopsies may be taken to rule out other conditions like recurrent malignancy or infections.

Imaging: Pelvic MRI or CT

scans can help assess the extent of fibrosis or exclude other pelvic pathologies.

Management

Treatment strategies for radiation-induced proctitis vary based on the severity and chronicity of the symptoms. They aim to alleviate discomfort, promote healing, and prevent complications.

Acute Proctitis

Symptom Management: Dietary modifications, antidiarrheal medications (e.g., loperamide), and adequate hydration can alleviate symptoms.

Anti-inflammatory Therapies: Topical corticosteroids (e.g., hydrocortisone suppositories) or mesalamine enemas may reduce inflammation.

Pain Relief: Analgesics or topical anesthetics can manage rectal discomfort.

Chronic Proctitis

Endoscopic Therapies:

Argon plasma coagulation (APC) or laser therapy is used to control bleeding from telangiectasia.

Medications: Oral or topical sucralfate promotes mucosal healing. Oral antibiotics like metronidazole are used in case of secon-

dary infections.

Hyperbaric Oxygen Therapy (HBOT): Enhances tissue oxygenation and promotes healing, especially in refractory cases.

Surgical Intervention:

Reserved for severe complications like strictures, fistulas, or perforations unresponsive to conservative measures.

Prevention

Preventive strategies focus on minimizing collateral damage during radiation therapy and identifying high-risk patients.

Advanced Radiation

Techniques: Intensity-modulated radiation therapy (IMRT) and proton therapy offer precise targeting of tumors, sparing surrounding healthy tissues.

Protective Agents: Use of radioprotective medications like amifostine may reduce tissue damage.

Regular Monitoring: Early identification of symptoms allows timely intervention, potentially reducing progression to chronic proctitis.

Prognosis

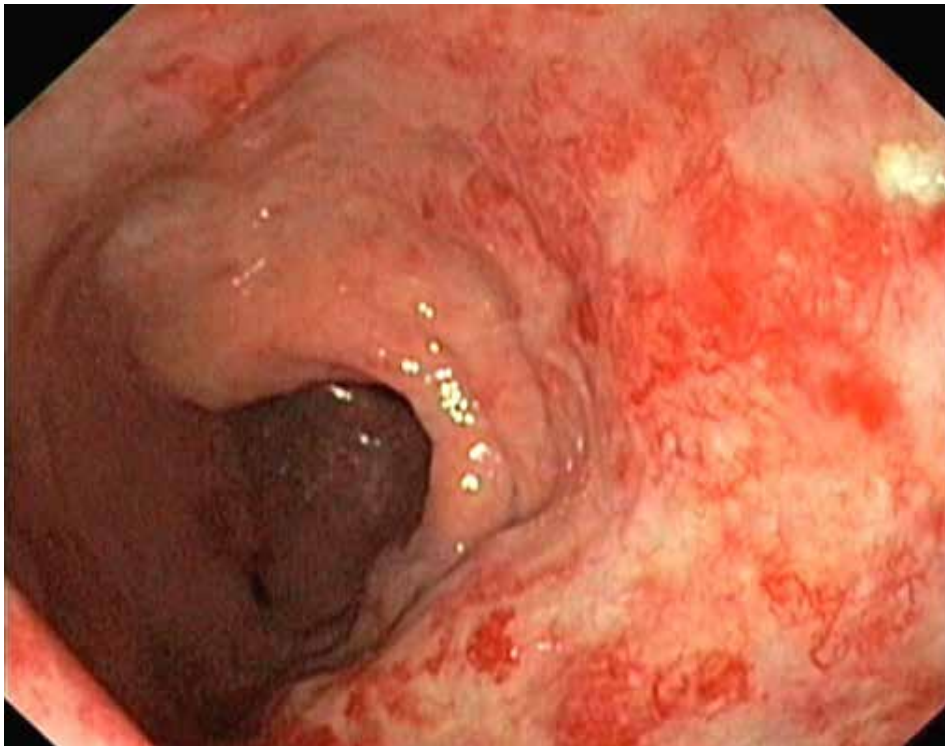
While acute radiation proctitis often resolves with conservative management, chronic radiation proctitis can be challen-

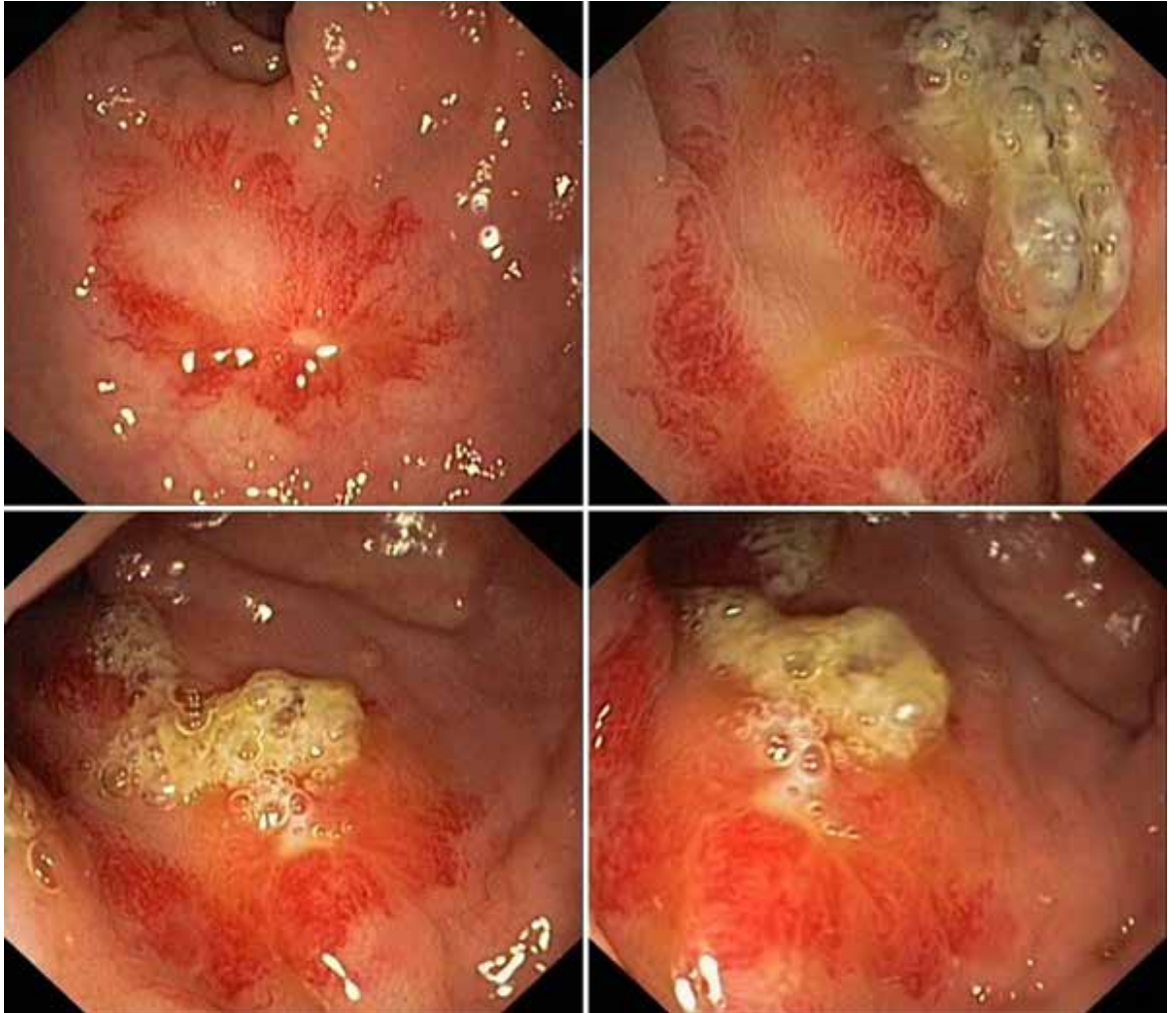
ging to treat and may significantly affect quality of life. Advances in therapeutic approaches and preventive measures continue to improve outcomes for affected patients.

Radiation-induced proctitis represents a significant clinical challenge in oncology, balancing effective cancer treatment with the preservation of rectal health. Multidisciplinary approaches involving oncologists, gastroenterologists, and surgeons are critical to managing this condition. Ongoing research into radioprotective strategies and innovative therapies holds promise for reducing the burden of this debilitating complication.









Focal radiation proctitis

