Anorectal Abscess: Causes, Symptoms, and Treatment

Anorectal abscess represents an infection of the soft tissues surrounding the anal canal, with the formation of a discrete abscess cavity.
It is often associated with the formation of a fistulous tract.

Causes of anorectal abscess

They arise from obstruction of anal crypts. Infection of the now static glandular secretions results in suppuration and abscess formation within the anal gland. The abscess typically forms initially within the intersphincteric space and then spreads along with adjacent potential spaces as ischiorectal, supralevetor or submucosal.

In about 20 percent of patients there is a clear predisposing cause, IBD, anorectal cancer, anal fissure, complicated hemorrhoids, or local trauma

Pathophysiology

The basic mechanism is the obstruction of anal crypts usually, from 4-10 anal glands are drained by respective crypts at the level of the dentate line. Obstruction of anal crypts results in stasis of glandular secretions and, when subsequently infected, suppuration and abscess formation within the anal gland results.

The abscess typically forms in the intersphincteric space and can spread along with various potential spaces.
Common organisms implicated in abscess formation include Escherichia coli, Enterococcus species, ad Bacteroides species

Less common causes of anorectal abscess that must be considered in the differential diagnosis include ;

- Tuberculosis,
- Cancer,
- Crohn disease,
- Trauma,
- Leukemia, and
- Lymphoma

Classification of anorectal abscess

1.Perianal abscesses

The most common type of anorectal abscesses, 60% of cases. These superficial collections of purulent material are located beneath the skin of the anal canal and do not transverse the external sphincter.

2.Ischiorectal

An ischiorectal abscess forms when suppuration transverses the external sphincter into the ischiorectal space.

3.Intersphincteric

Intersphincteric abscesses result from suppuration contained between the internal and external anal sphincters.

4. Supralevator.

A supra levator abscess results either from suppuration extending cranially through the longitudinal muscle of the rectum from an origin in the intersphincteric space to reach above the levators or as a result of primary disease in the pelvis (e.g., appendicitis, diverticular disease, gynecological sepsis).

5.Horseshoe abscesses

Rare, result from circumferential infiltration of pus within the intersphincteric planes.

Signs and symptoms

The signs and symptoms depend on the locations of abscess:

- Perianal 60%,
- Ischiorectal 20%,
- Intersphincteric 5%,
- Supralevator 4%, and
- Submucosal 1%

Usually, the clinical presentation correlates with the anatomical location of the abscess

On History

Pain is a prominent initial feature of perianal and superficial ischiorectal abscesses, followed by local signs of inflammation.

Perianal pain often is exacerbated by movement and increased perineal pressure from sitting or defecation. Patients also complain of dull perianal discomfort and pruritus.

Such symptoms are less evident or may even be absent with deep infections, which tend to develop insidiously with pyrexia and systemic upset.

Physical examination

Superficial lesions produce obvious signs of acute inflammation.

Perianal abscess, there is a localized; fluctuant, red, hot, and tender swelling close to the anus.

Such signs are more diffuse in patients with ischiorectal sepsis, where fluctuance is a late finding.

Other features that might be noted are skin necrosis if there is gross swelling and crepitus if a gas-forming organism is present.

Deeper infections produce less obvious abnormalities, and these are only apparent on digital rectal examination.- a fluctuant indurated mass may be encountered.

An optimal physical assessment of an ischiorectal abscess may require anesthesia to alleviate patient discomfort that would otherwise limit the extent of the examination.

Investigations

clinical suspicion of an intersphincteric or supra levator abscess may require confirmation by CT scan, MRI, or anal ultrasonography.

Management of anorectal abscess

Medical management entails the use of systemic broad-spectrum antibiotics that are changed appropriately with the results of culture and sensitivity.

Surgical management is achieved by incision and drainage after the patient has been examined under an appropriate anesthetic.

For ischiorectal and perianal abscess a cruciate incision with probing of the abscess to break the pus loculations
The cavity should be curetted and necrotic tissue excised.

Post-operative management

1. Sitz baths
2. Analgesia
3. Antibiotics
4. Stool softeners.