

Pilonidal Disease

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Pathophysiology and Presentation

Also Called “Pilonidal Cyst”, “Sacrococcygeal Pilonidal Sinus Disease” (SPSD), “Jeep Seat”, or “Jeep Disease” (Due to Prevalence in Drivers During World War 2)

Definition

- Inflammatory Condition of the Skin and Subcutaneous Tissue of the Gluteal Cleft ¹
- “Pilonidal Cyst” is a Misnomer – No Epithelial Lining (Not a True Cyst)

Pathophysiology

- Exact Mechanism is Not Clear
- An Acquired Collection of Hair and Skin Debris within a Pore or Pit (Previously Believed to be Due to a Congenital Abnormality) ^{2,3}

Risk Factors ⁴⁻⁶

- Young Adults (Teens-20's)
- Male Sex
- Caucasian
- Obesity
- Deep Gluteal Cleft – Facilitates Hair Entrapment
- Hirsute Body (Thick/Stiff Body Hairy)
- Prolonged Sitting (> 6 Hours)
- Local Trauma



Presentations ⁵⁻⁷

- *Acute Presentation*: Acute Cellulitis or Abscess
 - Sudden Onset Intergluteal Pain and Swelling
 - Mucous or Purulent Drainage
 - Fever
- *Chronic Presentation*: Chronic Smoldering Disease
 - Recurrent or Persistent Pain and Drainage
 - One or More Pits/Sinus Tracts
 - May See Shed Hair Protruding from Pits
 - Can Develop Squamous Cell Carcinoma in Long Standing Untreated Disease ⁸

Diagnosis

Diagnosis

- Clinical Diagnosis Based on History and Physical Exam
- May Consider MRI if Osteomyelitis is Suspected
- May Consider Biopsy if Concerned for Malignancy with an Atypical or Aggressive Appearance

Classification Systems

- Multiple Classification Systems Have Been Described but None Have Been Universally Accepted ¹⁰
- *Tezel Classification* ¹¹
 - Type I: Asymptomatic Sinus
 - Type II: Acute Abscess
 - Type III: Chronic Symptomatic Disease, Limited to the Navicular Area
 - Type IV: Chronic Symptomatic Disease, Extending Beyond the Navicular Area
 - Type V: Recurrent Disease
- *Guner Classification* ¹²
 - Stage I: Single Pit in the Midline
 - Stage II: Multiple Pits in the Midline
 - IIa: 2-3 Pits
 - IIb: > 3 Pits
 - Stage III: Midline Pits with Lateral Extension in One Direction
 - Stage IV: Midline Pits with Lateral Extension in Both Directions
 - (Stage R: Recurrent PSD Following Any Treatment)
- Other Classification Systems:
 - *Chavoin Classification* ¹³
 - *Doll Classification* ¹⁴
 - *Irkorucu Classification* ¹⁵
 - *Karkas Classification* ¹⁶
 - *Lapsekili Classification* ¹⁷
 - *Awad Classification* ¹⁸

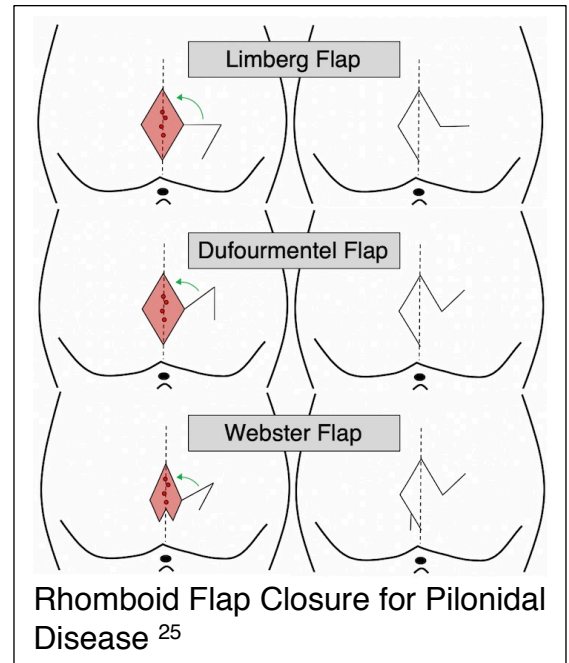
Treatment

Acute Disease

- *Cellulitis*: Antibiotics
- *Abscess*: Incision and Drainage (I&D)
 - Incision Made **Lateral to the Cleft** Off Midline – Improved Healing
 - Sinus Curettage or Tract Excision in Acute Disease is Not Successful ^{19,20}
 - Include Antibiotic Treatment if Diabetic, Immunocompromised, or Other Signs of Systemic Infection
 - 60% Chance of Successful Healing ²¹

Chronic Disease

- Primary Management of Chronic Disease is by Surgical Excision ^{5,20}
 - Techniques:
 - *Complete Midline Excision of Pit and Sinus Tracts*
 - *Tract Unroofing and Debridement without Pit Excision*
 - *Pit Picking (Bascom's Operation/Bascom I)* – Pits are Excised Using 2-4 mm Biopsy Punches and then Trapped Hair Follicles are Removed Using Fine Clamps
 - Smallest Intervention with Minimal Scarring
 - *Video-Assisted Sinus Ablation* – An Evolving Minimally Invasive Approach ²²
 - Preferred Technique is Debated
 - Preserve as Much Healthy Tissue as Possible
- Nonoperative Managements: ^{20,23}
 - **Meticulous Hair Control** (Shaving, Laser Hair Removal, or Topical Depilatory Creams)
 - Perineal Hygiene



Wound Closure After Surgical Excision ²⁴

- *Primary Wound Closure*
 - Approaches: Midline or Off-Midline
 - Faster Healing (14.5 Days) and Return to Work (11.9 Days)
 - **Higher Recurrence Rates** (8.7%)
- *Delayed Wound Closure/Secondary Intention*
 - Approaches:
 - *Left Open*
 - *Marsupialization* – Suture Skin Margins to Presacral Fascia at the Edges
 - *Negative Pressure Wound Therapy (NPWT)*
 - **Longer Healing** (60.4 Days) and Return to Work (17.5 Days)
 - Lower Recurrence Rates (5.3%)

- *Flap Closure*
 - Approaches:
 - *Rhomboid Flaps (Limberg, Dufourmentel, or Webster)*
 - *Karydakis Flap*
 - *Bascom's Cleft Lip Procedure (Bascom II)*
 - *V-Y Advancement Flap*
 - *Z-Plasty*
 - Generally Reserved for Extensive Disease
 - Decreases Tension to Facilitate Closure



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