Saddle Sores in the Cyclist

Background

1. General information
    - Overuse injuries occur in cyclists who regularly ride, especially those involved in competition
    - Ensuring that bike fit is correct is major factor in preventing overuse syndromes
    - Seen in new riders and w/sustained cycling
    - Furuncles and folliculitis more common than subcutaneous nodules
    - Subcutaneous nodule seen at any saddle contact point
        - Coccygeal nodule may be called "extra testicle" or "third testicle"
2. Painful cutaneous and subcutaneous nodules located where cyclist contacts bicycle saddle
    - Perineal
    - Ischial tuberosity
    - Buttock regions
    - Medial thigh chafing
        - Pain where medial thigh rubs saddle
    - Skin ulceration in medial thigh, perineal, ischial tubercle, buttock regions

Pathophysiology

1. Pathology of dz
    - Usual causes
        - Pressure
        - Friction
        - Infection
            - Infection not seen in all cases
    - Furuncles, folliculitis, and subcutaneous nodules
        - Pressure and friction lead to development
        - Can be aseptic or may develop secondary bacterial infection
            - Staphylococcus most common cause of infection
    - Medial thigh chafing; repetitive friction from rubbing against
        - Saddle
        - Loose fitting clothing between contact points w/saddle
    - Skin ulceration; results from excessive friction or pressure
        - Superficial skin layers denuded
        - Leads to ulceration
2. Incidence/ prevalence
    - Common in cyclists
        - Incr w/longer riding time
        - Most cases not reported to health care professionals
3. Risk factors
    - Rapid incr in riding time
    - Substantial riding time
    - Poor fitting, inappropriate, or excessively worn cycling attire
    - Poor hygiene
    - Wearing soiled or dirty cycling shorts
    - Poor saddle fit/design

- Inappropriate sit height or position
- Poor bicycle fit/setup
- No variation in position on bicycle during rides
- Leg length discrepancy
  - Sores incr on shorter side

4. Morbidity/ mortality
   - Significant for avid or professional cyclists d/t discomfort and interference w/training
   - Severe but uncommon complications
     - Cellulitis
     - Progressive cutaneous/subcutaneous infection

Diagnostics

1. History
   - Experienced cyclists present if:
     - Routine remedies have failed
     - If lesion is impacting training or competition
   - Furuncles, folliculitis, and subcutaneous nodules present with:
     - Pain
     - Discomfort
     - Soreness
     - Masses
   - Skin chafing/ ulceration present with:
     - Burning
     - Rawness
     - Redness
     - Skin hyperesthesia
   - Inquire about common causes
     - Change in cycling mileage, duration, or freq
     - Change in bicycle saddle, bicycle setup, or position on bicycle
     - Saddle stitching, seams, or defects may exacerbate condition
     - New bicycle
     - Clean attire for each ride
     - Cycle specific attire, short w/chamois recommended
     - Cycling attire irregularities incl holes, defects, and seams
   - Fevers, purulent drainage, bleeding, and progressive symptoms not responding to tx should incr concern
2. Physical exam
   - Furuncles and folliculitis
     - Tenderness, firm or fluctuant nodule, purulence, erythema
   - Aseptic subcutaneous
     - Lack of redness, warmth, purulence, tender, mobile
   - Skin chafing/ ulceration-denuded and ulcerated skin
   - If recurrent problems consider examining: cycling attire, saddle, entire bike
     - Consider referral for assessment of proper bicycle fit
     - Assess for leg length discrepancy if symptoms always on same side
3. Diagnostic testing
   - Generally not necessary

Differential Diagnosis

1. Soft tissue tumor
2. Bony tumor
3. Cellulitis
4. Necrotizing Fasciitis
5. Tinea Cruris
6. Herpes Simplex Virus
7. Lymphadenopathy
8. Dermatitis

Therapeutics

1. Prevention
    - Use synthetic cycling shorts w/chamois
        - Consider synthetic chamois over leather chamois
    - Wear clean shorts w/o excessive wear
    - Appropriate hygiene
    - Appropriate saddle, bike setup, and fit
    - Refer to qualified bicycle professional
    - Gradual incr in cycling duration
    - Consider commercially available chamois lubricants
        - Alternatively: Vaseline, Noxzema
2. Treatment
    - Change training regimen
        - Rest, decr cycling time
        - Hill training-decr saddle time
        - Removal of bicycle saddle and post to preclude any seated riding sometimes used
    - Apply mole skin directly or cut into donut to surround sore
    - Incr padding by wearing a second pair of padded shorts
    - Padded seat covers if no incr discomfort d/t incr bulk
    - Cycling shims are available for athlete w/leg length discrepancy
3. Further mgmt
    - Infected furuncles, follicles, and abscesses
        - Topical or oral antibiotics to cover staphylococcus
            - Consider MRSA
        - Incision and drainage if indicated
            - May have short term impact on training
    - Aseptic sores
        - Literature mentions cortisone injection
            - Evidence regarding this tx is anecdotal

Follow-Up

1. Return to office
    - Within 5-7 days if tx w/antibiotics
    - Sooner for worsening of symptoms, fever
2. Refer to specialist
    - Dx unclear
    - Failure to respond to therapy
    - Need for excision or further care

3. Return to sport
    - Return to and continuation of cycling is generally athlete determined d/t generally benign and self-limited nature

Prognosis

1. Good w/decr in pressure and friction over affected area

References

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2. Burke, ER. Serious Cycling, 2nd Edition. Human Kinetics, 2002

Author: Michael D. Milligan, MD, *University of Nevada Reno FPRP*

Editor: Carol Scott, MD, *University of Nevada Reno FPRP*