PEDIATRIC EMERGENCY DEPARTMENT CLINICAL GUIDELINE: ABSCESS

History:
Skin abscesses are collections of pus within the dermis and deeper skin tissues. Skin abscesses manifest as painful, tender, fluctuant and erythematous nodules. Cutaneous abscesses are commonly treated in the ED.

Diagnostic Evaluation & Management:
Evaluation: Prior to performing an incision and drainage (I&D), check for other skin conditions that can mimic abscesses (ie hiradenitis supprativa, kerion, cat scratch disease)7.

- In patients with cellulitis and possible abscess, bedside ultrasound may be helpful for identifying the presence, size, and location of the abscess4,5,8,13. Ultrasound can also help you gauge quantity of expected pus and where to perform your I&D.

Areas to consider getting a surgical consult: Perirectal, anterior and lateral neck abscess, hand abscess (excluding paronychia and felon), central triangle of face, breast abscess (near the areola and nipple).

Pain control:
- I&D warrants proper analgesia. Most simple abscesses and abscesses in older children/adolescents can likely be managed with local anesthesia (LMX/local lidocaine). In larger abscesses, young children, or in sensitive areas (ie pilonidal) consider parenteral analgesia/sedation in addition to local anesthesia. You may also consider intranasal pain control such as fentanyl.

Procedure:
- Equipment- I&D kit, mask including eye shield, packing material, wound dressing material.
- After adequate analgesia is achieved, incise skin with a scalpel. Perform linear incision through total length of the abscess. An abscess may be much larger than it appears on the surface so it may require a longer incision than the patient expects. Avoid needle aspiration unless abscess on the face or cosmetically sensitive area7.
Probe the abscess cavity with a hemostat to break up loculations. Identify foreign bodies. Probing the wound is painful and often requires further analgesia.

Recent studies show that irrigation does not improve outcomes.

Routine packing of simple cutaneous abscesses is painful and probably unnecessary but consider packing if large (>5cm), pilonidal abscess, diabetic or immunocompromised host. New studies suggest that packing in wounds <5cm seems to not change outcomes and that the pain and effort of the procedure is not worth the unchanged outcomes.6,9

Allow the wound to remain open to heal by secondary intention.12

Dress wound with clean gauze until fully healed.

**Therapeutic Management:**

- Wound culture is not necessary in healthy patients who will not receive antibiotics after I&D. However in the age of increasing MRSA and developing resistance patterns, consider getting culture, especially if giving antibiotics.

- There is a debate in the literature about the use of antibiotics after an I&D.2,11 When given in addition to I&D, systemic antibiotics do not significantly improve the percentage of patients with complete resolution of abscess. If there is surrounding cellulitis, concern about follow up, or multiple or recurrent abscesses consider antibiotics which cover MRSA and strep (ie Clindamycin, Bactrim). This decision will be left to physician discretion.

**Discharge Instructions:**

- Ideally schedule follow up within 24-48 hours with the patients’ primary care doctors. If unable to be seen by PMD, then consider having patient come back to the ER for a recheck.

- Anticipatory guidance ie. signs of infection: increasing pain, erythema, presence of pus are very important.
References:

Pediatric Emergency Medicine
University of Chicago
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