

My Patient Has An Abscess, Now What Do I Do?

Objectives

- Ability to correctly identify a lesion that needs Incision and Drainage.
- How to obtain informed consent before you do the procedure
- Learn how to do the procedure
- Aftercare of your patient with the I&D

Definitions

- Folliculitis
- Folliculitis is a superficial bacterial infection of the hair follicles with purulent material in the epidermis



Definitions

.Furuncle

–A furuncle is a well-circumscribed, painful, suppurative inflammatory nodule involving hair follicles that usually arises from preexisting folliculitis. A furuncle can occur at any site that contains hair follicles, especially in regions that are subject to friction and maceration (eg, face, neck, axillae, groin, thighs, and buttocks). The lesion may extend into the dermis and subcutaneous tissues and often serves as a nidus for cellulitis and skin abscess.

Furuncle



Definitions

.Carbuncle

– A carbuncle is a coalescence of several inflamed follicles into a single inflammatory mass with purulent drainage from multiple follicles



Definitions

Skin Abscess

–A skin abscess is a collection of pus within the dermis and deeper skin tissues. Skin abscesses manifest as painful, tender, fluctuant, and erythematous nodules, frequently surmounted by a pustule and surrounded by a rim of erythematous swelling



Case Study

Jeremy, a Caucasian male, age 24 presents to your clinic with complaints of a skin lesion on his arm that has been present for a week. He states it started as a small pimple-like bump on his arm. Over the past few days, he has noticed that it has increased in size and has become more painful. He comes to see you, his favorite APRN, to figure out what he can do.

Jeremy



Jeremy

• What questions might you ask Jeremy?

- When did you first notice the pimple
- What have you done at home for it?
- Any fever?
- Any drainage?
- Do you have any other pimples?
- Has this ever happened before?



Jeremy

- Jeremy tells you that this has never happened to him before
- He has not had a fever
- He has not noticed any drainage, although he wanted to just pop it because he thought it would feel better, but a friend told him not to.
- He has not been on any recent antibiotics, although he considered taking some Amoxicillin that he had leftover from when he had strep a few months ago.
- Have you seen someone like Jeremy in your office before?

Your Exam

- Vital signs are:
 - Blood pressure 124/78
 - Temperature 97.9
 - Pulse 68
- Alert and Oriented, no acute distress
- His left lateral forearm is erythematous and warm to touch with a fluctuant furuncle prominent on the dorsal surface

Your Exam

- The area is tender to touch
- He has about a 6cm long, 3 cm wide oval of erythema around the furuncle
- Movement of his forearm is painful



Diagnosis

- You, being the experienced NP that you are, diagnose Jeremy with an abscess
- At this point, you have three choices:
 - Send him to the ER for I&D
 - Treat him with antibiotics and see him back in a week
 - Do the I&D yourself

Your Decision

- You decide to do the I&D
- You explain the procedure to Jeremy and he agrees
- You have him sign a consent form and have it witnessed by your Medical Assistant and scanned into the chart

Equipment Needs

- Lidocaine 1% usually with epi

- To prevent bleeding
- Where to not use Lidocaine with epi?
 - Nose
 - Fingertips
 - Genital areas

Local anesthetic solutions containing a vasoconstrictor should be used cautiously and in carefully circumscribed quantities in areas of the body supplied by end arteries or having otherwise compromised blood supply

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Equipment

- A syringe with a small gauge needle for administration of the anesthetic
- Betadine or Iodine swabs for cleaning the area prior to making your incision and alcohol swabs for removing the excess Iodine
- A scalpel for making your incision
- Hemostats, I always have 2 or 3 sets ready
- Scissors

Equipment



Equipment

- Gloves, sterile and non sterile
- Gauze, sterile and non sterile
- Iotoforn Gauze for packing
- Tape for the dressing
- Sterile swab and culture tube to send a specimen to the lab

Equipment

- A table to hold your equipment
- A trashcan nearby and easy to reach
- A second set of hands can come in very handy

Procedure

- Ensure that your consent is signed and the patient understands what you are doing and how you are doing it
- Take a quick surgical time out to make sure everyone is on the same page
- Adjust your lighting and put on non sterile gloves

Procedure

- Clean the area with your Iodine swabs
 - Use 3 swabs and clean in a circular manner from the inside out
- Wipe off the excess Iodine with alcohol swabs
 - Iodine itches and we don't want the patient to be scratching at the area



Procedure

- Numb up the area with the Lidocaine
- Remember that inflamed tissue is difficult to anesthetize
- Use a small gauge needle and insert it bevel side up. Insert it just under the skin. You will know that it is where it is supposed to be if after you inject the tissue, it blanches

Procedure



Procedure

- Let the area alone for a few minutes to give the Lidocaine time to work
- Check for adequate anesthesia before proceeding. Try to use the least amount of Lidocaine you can, while still getting as much of the area numb as possible

Procedure

- Change to sterile gloves
- Use your scalpel to make a small incision. Try to keep the incision as small as possible but big enough to allow you to squeeze out the purulent material. You may have to cut a little deeper during the procedure to get it all to drain
- Before you really start squeezing, use your swab to get a culture to send to the lab

Procedure



Procedure

- Be aware that sometimes the abscess is under a lot of pressure. The pus can squirt out at you. Use appropriate precautions.
- Squeeze out as much of the purulent material as possible. You may have to use a set of hemostats inserted inside your incision to open up loculated abscesses. You may also have to use scissors.

Procedure



Procedure

- Once you have gotten as much of the drainage out as possible, you will want to pack the wound with Iodoform gauze to keep it open and to help get the rest of the pus out
- Use one bottle of the gauze per patient. Don't share.
- Using hemostats, pull the gauze out of the bottle and start packing the wound. Pack it in there firmly. Leave a wick so that the

Procedure



Aftercare

- The newest guidelines state that if you have done an I&D, you do not have to put the patient on antibiotics.
- But, if you choose to put the patient on Antibiotics, use something that covers skin like Doxycycline, Bactrim, Keflex or Augmentin.
- Check with a local lab about community resistance in your area. Use an antibiotic with good coverage
- Bring the patient back in a day or two to remove the packing and recheck the wound.
- If necessary, repack the wound the Iodoform gauze.



Aftercare

Aftercare:

- Antibiotics is not required after most successful I&D procedures performed in healthy patients unless extensive cellulitis (+) beyond abscess area.
- Cover the abscess wound with a sterile, non-adherent dressing.
- Check that the patient's tetanus immunizations are up-to-date.
- Remove packing material after 2-3 days.



Source: Piloni, AL, et al. 2007. Abscesses and Drainage. The New England Journal of Medicine. 357:2711-8

Aftercare

- Teach the patient about wound care.
- If the packing falls out on its own, instruct the patient to soak the wound in epsom salts and warm water to have the purulent drainage drawn out
- Once the induration is gone and you no longer see pus, you may leave the packing out and let the wound heal on its own. Do not suture or steri-strip.
- Most patients who have abscesses will get more in the future. Teach them to come in early and get them taken care of in the early stages
- Sometimes you have to refer to a surgeon to have the capsules removed, but be aware they may come back.

Aftercare


