THE TREATMENT OF PILONIDAL DISEASE

Dr J.G.M. Smit
Moderator: Prof du Plessis
Pilonidal disease

- History
- Pathogenesis
- Clinical picture
- Acute treatment
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History

- First described by Mayo in 1833.
- Warren defined hair as causative factor.
- Hodges proposed the term.
  - Pilus: hair
  - Nidus: nest
- End of 19th century pathogenesis was explained on basis of embryology.
History

• Vestiges of medullary tube.
  • Disappears after 5\textsuperscript{th} month of fetal life.
  • Believed to be persistence of neural canal.
  • Classified as:
    • Sacrococcygeal dimple
    • True pilonidal sinus
    • Sinus extending down between sacrum and coccyx and entering the sacral canal.
    • Sinus communicating with the central canal of the spinal cord.
• These cysts/sinuses are lined with cuboidal epithelium and resemble ependyma, not skin.
History

• Dermoid traction,
  • Hereditary dermal sinuses formed by skin invagination at the moment of separation of the neural tube from the ectoderm.
  • Late regression of the embryonic human tail.
• These features disappear in most individuals by 22 to 23 weeks.
History

• Inclusion dermoid
  • Lack of coalescence of superficial portion of the neural canal in early embryonic life.
  • Dislocation of dermal cells from ectoderm.
History

• Preen glands
  • Normally found in subcutaneous tissue in area of anus of some birds, reptiles and mammals.
  • Theory of secondary sex glands activated at adolescence.
  • Epithelialized tracts in area originate as congenital abnormalities.
  • Resection would be curative, but it isn’t.
Pathogenesis

- Patey and Scarff described it as an acquired condition.
- Described similar lesion in a barber’s hand.
- Pathologically a foreign body granuloma.
- Hair penetrates into subcutaneous tissue and gets sucked in deep into the cyst once they are shed.
- Cause chronic inflammation and infection.
- 463 cases with hair imbedded deep in the cyst, lying free, surrounded by giant cells.
- Hair follicles never found in cyst wall.
- Hair gain access through dilated hair follicles, sebaceous and sweat gland duct.
Clinical picture

• More common in males (4:1).
• Present in late teens.
• Hirsute.
• Often unaware of the sinus.
Clinical picture

- Asymptomatic disease: Painless cystic lesion or sinus in the typical area.
- Acute abscess.
- Chronic disease with usually multiple sinuses draining.
Acute treatment

• Incision and drainage with curettage.
Chronic treatment

- Still controversy as to best approach.
- Many different procedures.
- Background of possible congenital abnormalities, i.e. vestiges of medullary canal.
  - Gender and age distribution.
  - Rarity of association with congenital abnormalities.
  - Recurrence after wide excision.
  - Absence of pilous follicles and other components of the skin in the wall of the cyst.
Excision: Open method

- Wide excision of entire cyst up to level of the posterior sacral fascia.
- Wound closes by secondary intention.
- Slow wound healing and return to work.
- Recurrence acceptable.
Excision: Closed method

- Aim is to achieve quicker wound healing.
- High recurrence.
- Wound dehiscence.
- Wound infection.
- Painful.
Lateral incision and primary closure

- Karydakis: 35 year experience with 6545 patients reported a 1% recurrence.
- Others report a 4% recurrence.
- A good option for complicated disease.
Excision: Plastic methods

- Aim: To achieve quicker wound healing.
- Recurrence is acceptable.
- Wound dehiscence is serious complication.
- Long hospital stay and long procedure time.
Marsupialization

- Incision of the skin and curettage of the granulation tissue.
- Skin is then sutured to edges of underlying fibrotic tissue to make the wound smaller.
- No real advantage above simple incision and curettage and it adds to the time of the procedure.
Incision and curettage

• Insert probe into sinus and incise the skin.
• Curettage the granulation tissue.
• Wound closes by secondary intention.
• Good wound care is important with weekly follow-up.
• Recurrence is acceptable and can be treated in the same way.
• Can be done in outpatient setting.
• Quick return to work.
Other described treatments

- Incision and suture of follicles.
- Lateral incision and drainage with primary closure.
- Results are similar to primary closure.
- Off-midline closure is superior to midline closure.
- VAC has also been shown to improve healing time.
## Literature summary

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Time to cicatrization</th>
<th>Recurrence</th>
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</thead>
<tbody>
<tr>
<td>Open</td>
<td>13.3 weeks</td>
<td>7.1%</td>
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<tr>
<td>Primary closure</td>
<td>21 days</td>
<td>20.4%</td>
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<tr>
<td>Plastics procedure</td>
<td>9 days</td>
<td>3.37%</td>
</tr>
<tr>
<td>Marsupialization</td>
<td>29 days</td>
<td>2.7%</td>
</tr>
<tr>
<td>Incision and curettage</td>
<td>41.8 days</td>
<td>8.8%</td>
</tr>
</tbody>
</table>
Literature

• Kepenekci *et al.* treated 297 patients with incision and curettage.
  • 2% recurrence.
  • Returned to work: 3 +/- 1 days.
  • Time to wound healing: 5.4 weeks.
  • All patients with recurrence were successfully treated with incision and curettage.
• Hair removal in the area.
• Good wound care is essential.
Take home message

• With acceptance of the acquired theory of pathogenesis, wide excision has become an overkill.
• In extensive disease lateral excision with primary closure is probably the best option.
• Skin flaps should be reserved for difficult cases as other less cumbersome methods has equivocal results.
• Incision and curettage is effective, easy, and cost-effective.
• Recurrence can also be treated effectively.
THANK YOU