Epidermal Inclusion Cyst

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Background

- cysts that are the result of the implantation of epidermal elements in the dermis
- epidermoid cyst
- milia merely represent miniature epidermoid cysts
- wen should be reserved for trichilemmal or pilar cysts

Background

- Sebaceous cyst is a misnomer, and the term should not be used at all because these cysts are not of sebaceous origin

Pathophysiology

- proliferation of epidermal cells within a circumscribed space of the dermis
- not be sebaceous origin based on the analysis of their lipid pattern, which demonstrates similarities to the epidermis

- epidermoid cysts express cytokeratins 1 and 10
  - constituents of the suprabasilar layers of the epidermis
- source of this epidermis is often the infundibulum of the hair follicle
  - as evidenced by the observation that the lining of the 2 structures is identical

Mortality / Morbidity

- Epidermoid cysts are slow growing and usually asymptomatic, but they may become inflamed or secondarily infected, resulting in pain and tenderness.
- Rarely, malignancies, including basal cell carcinoma, Bowen disease, SCC, and even mycosis fungoides, have developed in epidermoid cysts.

Age

- occur at any time in life
- most common in the third and fourth decades of life
- Gardner syndrome is an exception; the average patient age at onset is 13 years.

History

- foul-smelling cheeselike material
- cysts can become inflamed or infected, resulting in pain and tenderness.
- In the uncommon event of malignancy, rapid growth, friability, and bleeding have been reported.

- located orally, the cysts can cause difficulty in feeding, swallowing, or even speaking.
- Lesion of the genitals can be especially painful during intercourse or cause problems with urination.
- Subungual lesions have also been associated with pain, as have plantar lesions, causing difficulty with walking or other activities.

Physical

- Firm
- Round
- Mobile
- flesh-colored to yellow or white subcutaneous nodules
- variable size

- central pore or punctum
  - tether the cyst to the overlying epidermis
  - from which a thick cheesy material can sometimes be expressed

- In individuals with dark pigmentation, epidermoid cysts may also be pigmented.
  - In a study of Indian patients with epidermoid cysts, 63% of the cysts contained melanin pigment.

Causes

- sequestration of epidermal rests during embryonic life
- occlusion of the pilosebaceous unit
- or traumatic or surgical implantation of epithelial elements

- HPV infection and eccrine duct occlusion may be additional factors in the development of palmoplantar epidermoid cysts.

Differential Diagnosis

- Branchial Cleft Cyst
- Calcinosis Cutis
- Dermoid Cyst
- Gardner Syndrome
- Lipomas
- Milia
- Nevoid Basal Cell Carcinoma Syndrome
- Pachyonychia Congenita
- Pilar Cyst
- Steatocystoma Multiplex

Histologic Findings

- lined with stratified squamous epithelium that contains a granular layer and is filled with keratinous material that is often in a laminated arrangement
- Hybrid cysts = lining has parts of an apocrine hidrocystoma or trichilemmal cyst

- Older cysts may exhibit calcification or a foreign body reaction to the contents of the cyst that has ruptured into the dermis
- occasional presence of malignancy in an epidermoid cyst
  - SCC and basal cell carcinoma

- Pigmented epidermoid cysts may demonstrate melanin pigment in the wall and a keratin mass
- A surrounding infiltrate of melanocytes and melanophages may also be observed.

Medical Care

- Asymptomatic epidermoid cysts do not need to be treated.
- Uninfected, inflamed cysts may respond to an intralesional injection of triamcinolone.
- For cysts considered to be infected, incision and drainage followed by treatment with antistaphylococcal oral antibiotics is recomme

Surgical Care

Incision and drainage

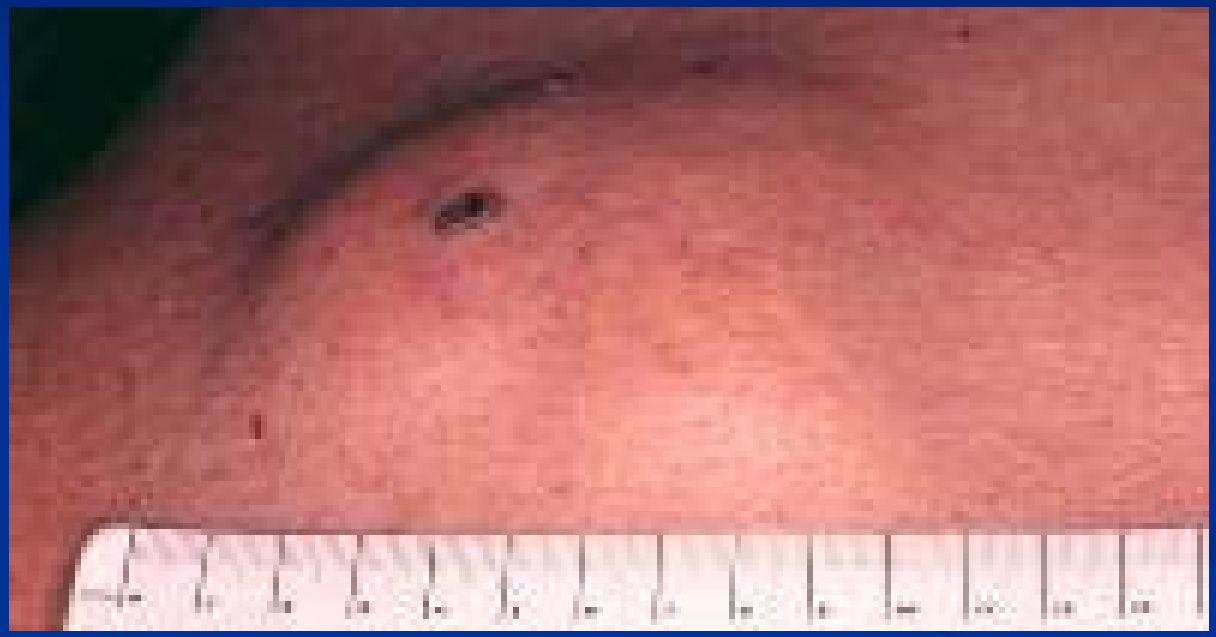
- Fast
- Simple
- recurrences are frequent
  - keratin producing lining of the cyst is not removed.

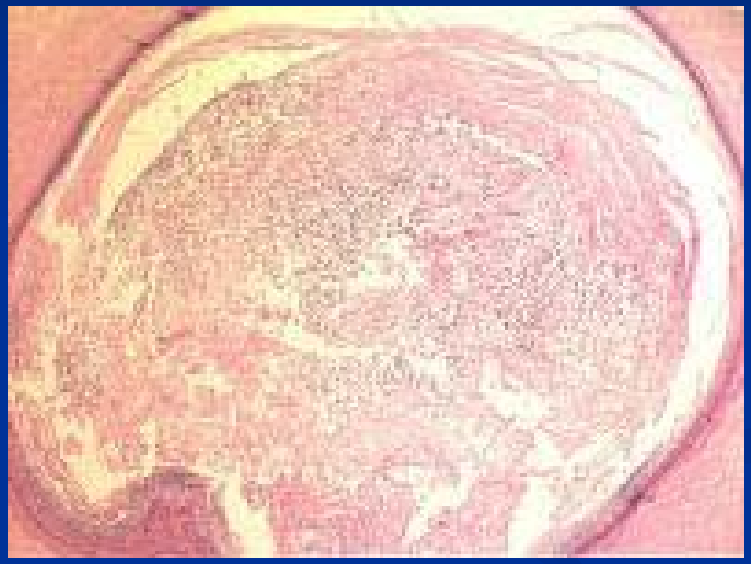
Excision

- more definitive treatment
- Preferable
- excision should be designed around the punctum
- sutured immediately, or be allowed to drain prior to closure, especially if secondary infection is suspected
- main drawbacks of excising epidermoid cysts are the increased wound length and the risk of scarring.

Deterrence / Prevention

When the cutaneous portion of a myocutaneous flap is to be buried, a dermatome should be used to remove the epidermis





References

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