Case Report: Eccrine Poroma of The Foot

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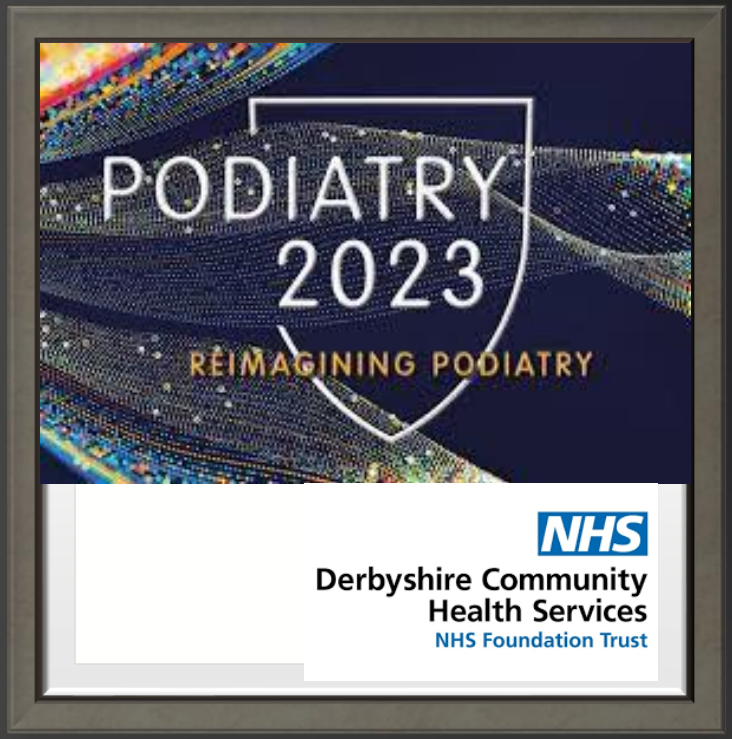


Referred by community podiatry for surgical opinion on a verrucae

Description:	R plantar hallux verruca

Patient history

- 69-year-old Caucasian male
- Non-smoker
- Medical history: Type II Diabetic (good glycaemic control), Hypertension (well controlled), hypercholesterolaemia
- Medication: Metformin, Ramipril, Atorvastatin, and Salicylic acid prescribed by General practitioner
- Allergies: Nil

Examination (notes taken from EPR seen initially by staff podiatrist)

- Skin lesion to right plantar hallux 6mm x 8mm. Hx 10yrs. Dx Verruca by GP and Podiatrists.
- No hx of trauma
- Surrounding skin macerated, granulation tissue to central lesion , likely due to salicylic acid application. Concerns re ulceration as diabetic?
- No clinical signs of infection.
- Mod pain 5/10 VRS
- Neurovascular status intact
- Not responding to caustic/conservative treatment
- Offered and declined dry needling
- Requesting surgical opinion

Follow up arranged with surgeon for surgical opinion

- Seen at follow up 4/52 by SpR
- Skin lesion: red raised fleshy nodule with smooth surface, macerated and vascular
- Increasing pain 7/10
- Clinical presentation at this stage resembled pyogenic granuloma
- Called in house dermatologist (on site) to cast an eye
- No immediate sinister concerns, happy for us to proceed
- Patient motivated towards surgical excision
- Listed for surgery

Listed for Surgery

Full thickness elliptical excision of lesion

Primary closure with Nylon sutures

Sample sent to histopathology

Results

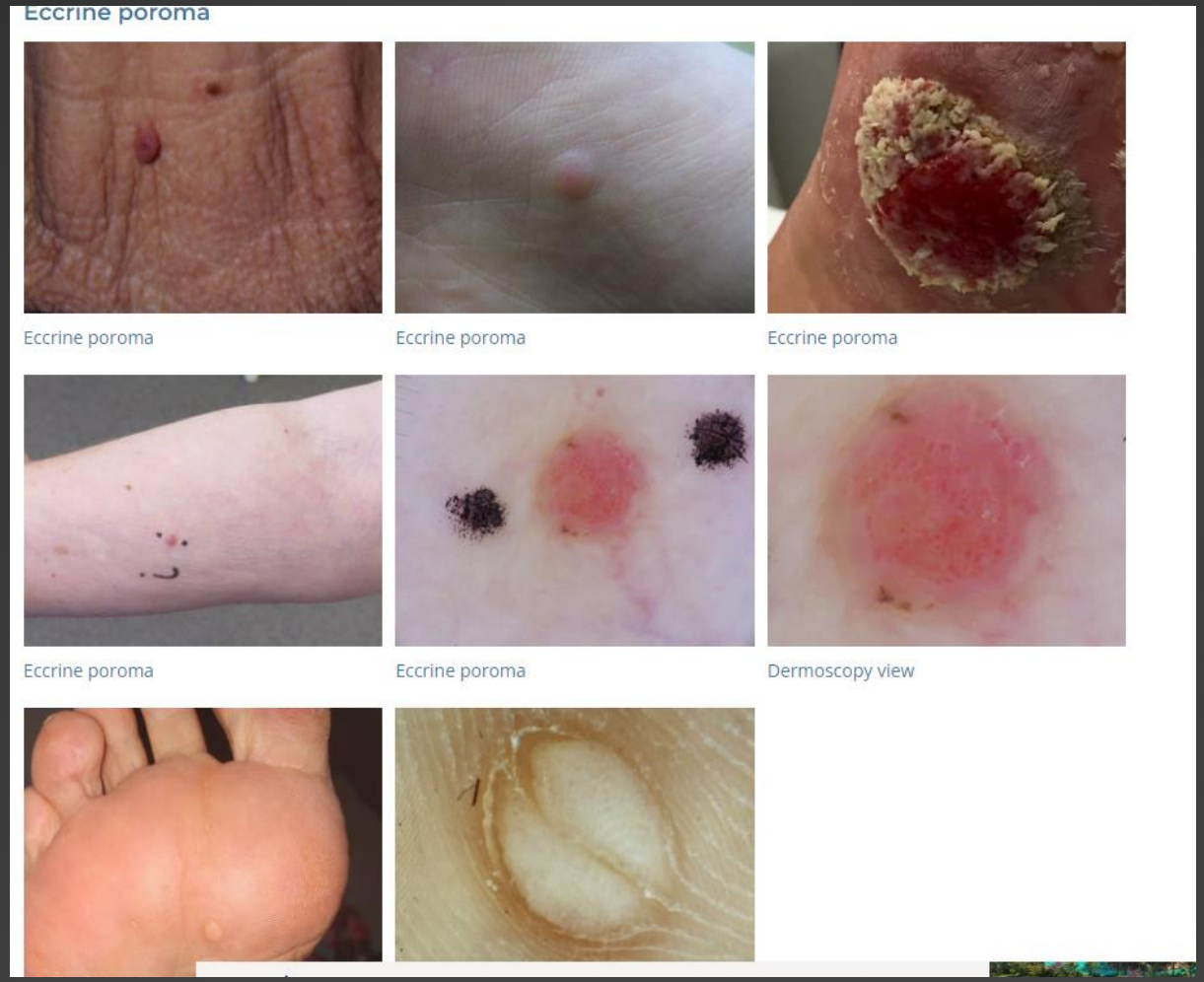
Histopathology reports: Eccrine Poroma

Cuboidal cells of eccrine lineage with monomorphous ovoid nuclei and a highly vascularized stroma.

Eccrine Poroma

- A sweat gland tumour 1st reported by Goldman and Pinkus 1956
- Malignant variant 1st reported by Pinkus and Mehregan in 1963
- Benign neoplasm originating from the intra epidermal ductal portion of the sweat gland (Kang et al, 2011)
- Highly vascular and slow growing
- Varied clinical appearance ranging from erythematous flesh-coloured nodules, papular, verrucous, ulcerated, pedunculated plaques
- Malignant transformation to Eccrine Porocarcinom a is not uncommon and can be aggressive and involve bone and local lymph nodes carrying a 65% mortality rate. (Salih et al 2017, Snow et al 1992)
- Progression to malignancy mean of 8.5 years (Chang et al 2011)

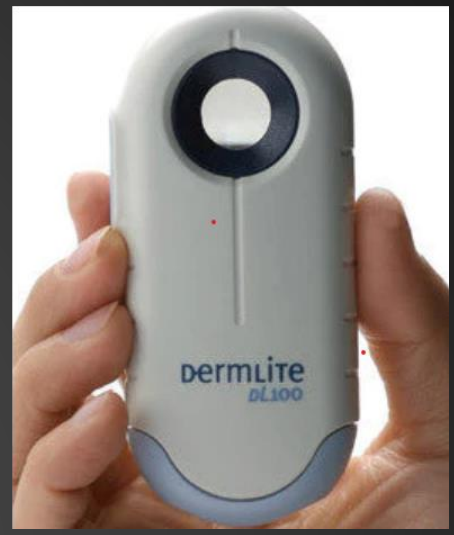
Taken from DermNet image library https://dermnetnz.org/topics/eccrine-poroma-images

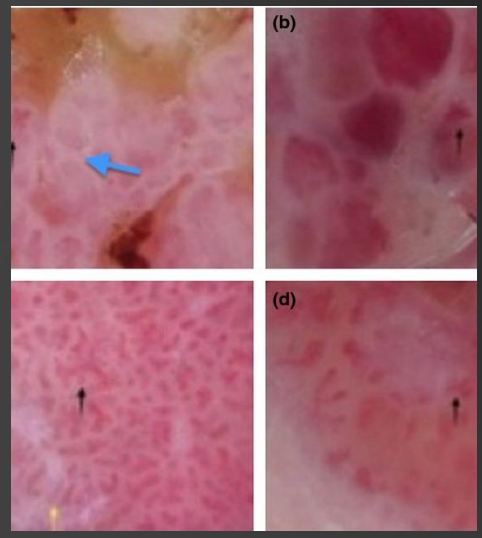


Investigations

- Skin Biopsy and Immunohistochemical staining

- Dermatoscopic evaluation : Flower and leaf vascular pattern





Differential diagnosis

- Verrucae
- Pyogenic granuloma
- Squamous cell carcinoma
- Basal cell carcinoma
- Amelanotic melanoma

- Red Flags for malignancy: increase in size, Bleeding, pain and irritation. (Robson et al 2001)

Epidemiology and Risk

- Represents 10% of all sweat gland tumours and 1% of all skin lesion. *(Chessa et al 2019)*
- 20-50% transform into malignant Porocarcinomas (*Arbona et al, 2010) (Mishma et al 1969)*
- Most commonly develop on lower extremities 44%, trunk 24% head and neck 24% *(Wong et al, 2003)*
- Size varies few millimeters-2cm in width, can bleed and ulcerate from minimal trauma *(Wong et al 2003)*
- Prevalence in adults aged 60 -80 yrs. *(Gerber et al, 2008)*
- Equal incidence rates in both sexes. *(Sawaya eta al, 2014)*
- Recurrence rate is 20%and can indicate malignancy *(Marone et al, 2011)*
- Porocarcinomas with lymph node metastases the survival time for patients is estimated to be between 5 and 24 months *(Goel et al, 2003) poor prognosis*

Aetiology

Benign EP

- Unclear
- Trauma
- Radiation exposure
- Viral infection… Verruca?
- Sun damage

Lim et al 2019

Treatment

- Simple excision and histopathology is the treatment of choice .
- Curative
- Rational:

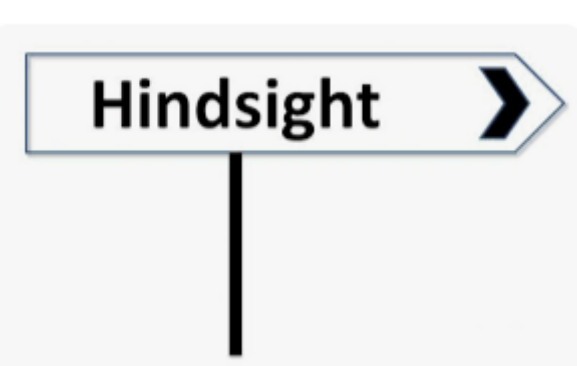
➢Prone to deep soft tissue infection

➢Malignant transformation Porocarcimoma

- Wide local excision should be considered in cases of recurrence or malignancy

- Bolognia et al, 2012

Reflections on case



- Cascade effect : "Where by a process or theme once initiated continues to influence the onward path"
- That said the lesion may have initially presented of that of a verrucae then due to cellular differentiation transformed into tumour?? (Viral component?)
- Consider Incisional biopsy prior to surgical excision for a definitive diagnosis
- Direct referral to dermatology prior to any intervention for Dermoscopy.
- This case exemplifies the importance of a broad differential diagnosis, especially regarding soft-tissue masses of the lower extremity
- Obtain base line plain films to rule out bony involvement

Revision: ABCDE's of skin cancer

- ABCDE Rule

Asymmetry = none

Borders = regular well defined

Colour = no pigmentation

Diameter= > 6mm

Evolving = change in size shape or colour

Revise the acronyms for skin CA

- CUBED

C= Colour

U=Uncertain Diagnosis

B=Bleeding

E=enlargement of lesion despite Rx

D=Delay in healing

RED FLAGS

- Recurrence
- Increasing in size#
- Irritation
- Bleeding
- Pain

In summary

- Due to the multiple variations in clinical appearance, the detection of EP may be difficult and may lead to late diagnosis and poorer prognosis.
- Therefore, a high index of suspicion, early recognition and appropriate treatment at the initial presentation is paramount
- Fortunately, luck was on the patient's side and the tumour was caught on time prior to malignant transformation

Patient went on to heal and tumour was completely eradicated.

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- Thank You

Aetiology

Malignant EP

- Also linked to Autoimmune diseases and malignancies;
- Paget's disease
- Sarcoidosis
- Pernicious anaemia
- HIV
- Hodgkin's disease
- Chronic lymphocytic leukaemia
- Nevus sebaceus
- Xeroderma pigmentosum

Sawaya et al, 2014