Case 3 and 4

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Case 3

A 59 year old man presented with a nodule in the left pre-auricular area. He has no significant medical history.
Tricholemmal Carcinoma

clinical

- Malignant epithelial neoplasm with outer root sheath differentiation
- Sun-exposed skin, most commonly head and neck and dorsum of hands
- 60 – 80 yr old
- Papule, nodule or plaque
  - Erythematous
  - <2.0 cm
  - Often ulcerated
- Behavior – Indolent. Metastasis have not been reported
- Treatment: Excision is curative
Tricholemmal carcinoma
histology

- Sharply circumscribed epithelial lobules
- Continuity with epidermis or follicular epithelium
- Large cytologically atypical cells with varying degrees of atypia
- Clear (or pale) cytoplasm: PAS+, diastase sensitive
- Large nuclei with mild to marked nuclear pleomorphism and prominent nucleoli
- Numerous and abnormal mitoses (4-39/10 hpf)
Tricholemmal carcinoma histology

- Peripheral palisading
- Prominent basement membrane
- Trichilemmal/pilar keratinization
- Abrupt interface with adjacent, non-neoplastic epidermis
- Hemorrhage and/or necrosis in large lesions
- Histologically invasive, “pushing” border
Tricholemmal carcinoma histology

- +/- infiltrative pattern
- Inflammatory infiltrate:
  - Plasma cell-rich, lymphocytic infiltrate
- Immunohistochemistry
  - PAS+
  - EMA+/-
  - CEA-

Differential diagnosis

- Squamous cell carcinoma, clear cell variant
- Keratoacanthoma
- Pilosebaceous neoplasms
  - Sebaceous carcinoma
- Basal cell carcinoma, clear cell type
- Porocarcinoma
- Hidradenocarcinoma
Squamous cell carcinoma clear cell variant

- Infiltrative, rather than pushing border
- No peripheral palisading
- No hyaline mantle
- No cytoplasmic glycogen, PAS-
- Keratinization is infundibular (with granular cell layer)
- EMA+
Keratoacanthoma

- Solitary, rapidly expanding, dome-shaped nodule with a keratin plug
- Most commonly 60-80 yr old, M>F
- Face and extremities
- Biologic nature is controversial, considered by some as a variant of squamous cell carcinoma
- Tendency to involute
Keratoacanthoma

- Endophytic nodule with central patent keratin-filled cavity
- Well-differentiated keratinizing epithelium
- Large, glassy eosinophilic cytoplasm
- Atypia may be prominent
- Mitosis may be numerous
- Basal layer maintains a cuboidal appearance
- Perilesional inflammatory infiltrate may be exuberant.
Sebaceous carcinoma

- Most commonly on the face.
- Nodular growth, clinically most often mistaken for BCC.
- Like TLC, sebaceous carcinoma has a lobular growth pattern centered on a follicle, peripheral palisading, cytologic atypia.
- The presence of finely vesicular cytoplasm, indicating sebaceous differentiation, has not been described in TLC.
- EMA+
- PAS-
Porocarcinoma

- Malignant neoplasm of the sweat duct
- Elderly
- Verrucous plaque or polypoid growth
- Leg > trunk > head and neck > arm
- Ductal differentiation
- Intracytoplasmic lumina
- EMA+ / CEA+
Hidradenocarcinoma

- Wide age range (childhood – elderly)
- Wide site distribution: head and neck, trunk, extremities, genital
- Present as nodules
- Aggressive behavior with frequent metastasis
Histology

- Dermal based neoplasm without an epidermal association
- Infiltrative peripheral margins
- Pleomorphic, mitotically active glycogenated cells
- Basaloid cells may predominate
- No peripheral palisading
- Intracytoplasmic ductal differentiation