Symposium on Melanocytic Lesions: Spitz Tumours

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Spitz Naevus

-Introduction-

- One of the most challenging and controversial aspects of melanocytic tumour pathology to date
- Described by Sophie Spitz in 1948 as ‘juvenile melanoma’:
  - Favourable outcome despite worrying histological features
  - Histological features poor predictor of outcome (disease associated mortality in 1/13 patients)
Spitz Tumours

-Problems-

65 years after Sophie Spitz’ publication

- Poor insight into the biology of Spitz tumours
- Difficult to predict behaviour

Largely arbitrary classification into

- Spitz Naevus
- Atypical Spitz Tumour/Spitz Tumour of Uncertain Malignant Potential
- Spitzoid Melanoma
Spitz Naevus

-Clinical Presentation-

- Wide age spectrum but most common in childhood and adolescence
- Decreasing frequency with age
- Predilection for Caucasians
- Slight female predominance
- Wide anatomic distribution
  - Face and ear in childhood
  - Trunk and extremities in adulthood
- Non-pigmented, red to skin coloured papule <1cm in diameter

Calonje et al. McKee’s Pathology of the Skin, 4th ed. Elsevier 2013
Spitz Naevus

-Genetics-

Different underlying genetic changes compared to conventional naevi and melanoma

- Lack of mutation in NRAS, KIT, GNAQ, GNA11
- HRAS mutations in \( \sim 10\% \) (desmoplastic SN)
- Homozygous loss of BAP1 and BRAF mutation
- Kinase fusions involving ROS1, NTRK1, ALK, BRAF, RET in \( \sim 50\% \) Spitz Tumours

Morphological Spectrum of Spitz Tumours

- Pagetoid Spitz
- Acral Spitz
- Desmoplastic Spitz
- Pigmented Spitz and Spindle Cell Naevus (Reed)
- Deep Penetrating Naevus

Atypical Spitz Naevus/Tumour/Stump
Spitzoid Melanoma
Pagetoid Spitz Naevus

- Small, <5mm macules
- Extremities
- Children and adolescents
- Female predilection
- Histology concerning for SSMMIs
- Benign behaviour

Pagetoid Spitz Naevus

DDx: MMIS

Reassuring features:
- Small size
- Lesional circumscription
- Epidermal hyperplasia
- Lack of nuclear pleomorphism

Problem: partial sampling
Acral Spitz Naevus

• Adolescence and adults
• M=F
• Foot>>>hand
• 0.5 – 1.0 cm
• pigmented lesion
Acral Spitz Naevus

DDx: Acral lentiginous melanoma

Reassuring features:
• Lesional circumscription
• Lack of diffuse growth pattern
• Lack of nuclear pleomorphism

Tx: Complete excision
Desmoplastic Spitz Naevus

- Brown/erythematous papules
- <1cm
- Adulthood
- F>M
- Extremities
- HRAS mutations