Diagnosis

- Subungual keratoacanthoma
  or
- Verrucous carcinoma

- Skin cancer MDT review
Subsequent findings

Å Skin
  ï Reported blistering in early weeks of life
  ï Linear hypopigmentation to legs, absent hair follicles

Å Teeth
  ï Misshapen and missing teeth

Å Hearing
  ï Reduced hearing to left side

Å Miscarriages

Å CNS and Sweating
  ï No problems
Å Hair

ï Scarring alopecia
Å Nails

Dystrophic nails
Family history

daughter
- Erythematous, scaly skin at birth
- Hypopigmentation, absent hair follicles to limbs
- Missing teeth

sister
- 4 miscarriages

mother
- 2 miscarriages
- Missing teeth

maternal grandmother
- Scarring alopecia
Subungual tumours in incontinentia pigmenti (IP)

- Subungual tumours are a late feature of IP
  - in 2\textsuperscript{nd} to 4\textsuperscript{th} decade
- Rare finding
- Fingers > toes
- Often multiple tumours
- Reported as only feature of IP
Subungual tumours in incontinentia pigmenti

Â Classically painful
Â Spontaneous regression reported
Â Destruction of the distal phalanx occurs by a direct pressure effect rather than true invasion of underlying bone
Subungual tumours in incontinentia pigmenti

- Classification of these lesions is debated
- Can subungual tumours in IP be distinguished from subungual keratoacanthomas (KA)?
- Nature of subungual KAs further debated
  - KAs arise from the epithelium of hair follicles
  - Hair follicles are absent from the nail bed
- Should alert clinicians to possible underlying diagnosis of incontinentia pigmenti
Mucinous carcinoma
Mucinous Carcinoma

- Primary vs secondary spread.
- Visceral ones easy to sort out
- Separation from Breast is difficult.
Primary from secondary AdenoCa.

Immunohistochemistry

Â D240; reported as helpful
   • Am.J.Surg.Path2007; 31;304-310
Â P63; also reported as very helpful
   • J.Cutan.Path.2004;31:145-152
   • Modern Pathology 200518;137-142
   • Modern Pathology (2010) 23, 713–719;
Â BUT; only small numbers of mucinous and apocrine tumours. Often didn’t work.
Mucinous carcinoma, in-situ
Primary cutaneous mucinous carcinoma: presence of myoepithelial cells as a clue to the cutaneous origin.
Smooth muscle myosin
THE MOLECULAR PATHOLOGY OF MELANOMA: AN INTEGRATED TAXONOMY OF MELANOCYTIC NEOPLASIA

Boris C. Bastian

Abstract

Melanomas are comprised of multiple biologically distinct categories, which differ in cell of origin, age of onset, clinical and histologic presentation, pattern of metastasis, ethnic distribution, causative role of UV radiation, predisposing germ line alterations, mutational processes, and patterns of somatic mutations. Neoplasms are initiated by gain of function mutations in one of several primary oncogenes, typically leading to benign melanocytic nevi with characteristic histologic features. The progression of nevi is restrained by multiple tumor suppressive mechanisms. Secondary genetic alterations override these barriers and promote intermediate or overtly malignant tumors along distinct progression trajectories. The current knowledge about pathogenesis, clinical, histological and genetic features of primary melanocytic neoplasms is reviewed and integrated into a taxonomic framework.
15 Male ? Pyogenic granuloma on leg.
My Report

*Atypical Spitzoid Tumour of uncertain malignant potential.*
Spitz nevi/tumors with ALK fusions tended to be polypoid and amelanotic. A plexiform growth of intersecting fascicles of fusiform melanocytes was the most common and characteristic feature.
ALK- 1 immuno my case
None of the patients of this series experienced a tumor recurrence, the number of cases is too small, and the currently available follow-up is too short for any meaningful conclusions.
22 Male lesion on calf

Intradermal melanocytic lesion
Irregular, hyperchromatic nucleus

Sock-like nucleus

Abundant cytoplasm
Further Lesion, Odd dermal nodule
Nuclear pseudoinclusions (Case 4)
Clinical information

Â Previous similar difficult moles removed.
Â Multiple family members with similar lesions
Germline mutations in \textit{BAP1} predispose to melanocytic tumors

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BAP1 Tumours

The melanocytic neoplasms in affected family members ranged histopathologically from epithelioid nevi to atypical melanocytic proliferations that showed overlapping features with melanoma.

We found inactivating germline mutations of the \textit{BAP1} gene.

We found \textit{BAP1} mutations in a subset of sporadic melanocytic neoplasms showing histologic similarities to the familial tumors.

These findings suggest that loss of \textit{BAP1} is associated with a clinically and morphologically distinct type of melanocytic neoplasm.
A distinct subset of Atypical Spitz Tumors is characterized by

BRAF mutation and loss of BAP1 expression

Thomas Wiesner¹,³,*; Rajmohan Murali¹,²,*; Isabella Fried³; Lorenzo Cerroni³; Klaus Busam²; Heinz Kutzner⁴; and Boris C. Bastian¹,²,⁵


BRAFmutated,BAP1-negative tumors were primarily located in the dermis and were composed entirely or predominantly of epithelioid melanocytes with abundant amphophilic cytoplasm and well defined cytoplasmic borders. Nuclei were commonly vesicular and exhibited substantial pleomorphism and conspicuous nucleoli.

Future studies are necessary to determine whether this subset has a predictable clinical behavior.
New Genetic insights in Melanocytic tumours

Â Starting to unravel some mysteries
Â With new genetic insights, can start to recognise new features on H+E
Â H+E and genetics is a 2 way process.  
Â Careful observation on H+E can still give great insight.
THE END
and
Thank you for listening