

Cutaneous Pathology

Benign Melanocytic Lesions



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is a member of the
histopathology
department, with
experience in
dermatopathology.

While by definition innocuous in terms of clinical outcome, benign melanocytic lesions often require careful clinical and/or pathological assessment to exclude dysplastic or malignant melanocytic lesions. This is best achieved by accurate classification of the lesion into a recognised diagnostic category, the major examples of which are discussed below.

FRECKLE (EPHELIS)

A **freckle (ephelis)** is an area of increased melanin production without an increase in melanocyte numbers. These will often fade in the absence of UV exposure.

LENTIGO

In contrast, a **lentigo** shows an increase of melanocytes in linear array along the dermo-epidermal junction and persists in the absence of UV exposure. Multiple lentiginos are occasionally a component of rare hereditary syndromes with internal manifestations such as Carney syndrome.

LABIAL MELANOTIC MACULE

Labial melanotic macule is a pigmented macule occurring on the lip that histologically demonstrates increased melanin pigment, normal

melanocyte numbers and melanin spillover into the dermis. Similar lesions may occur on the penis and vulva (**genital melanotic macules**). These lesions are benign, but tissue diagnosis is of importance to distinguish them from mucosal melanomas, which can demonstrate a deceptively banal clinical appearance.

ACQUIRED MELANOCYTIC NAEVUS

Acquired melanocytic naevi consist of aggregates of benign naevus cells. **Junctional naevi** consist of nests at the dermo-epidermal junction, **compound naevi** also show dermal naeval cells and **intradermal naevi** involve the dermis only. Clinically distinctive variants include the **halo naevus**, which demonstrates a depigmented halo due to the initiation of inflammatory regression, and the **Meyerson naevus**, which shows an eczematous halo.

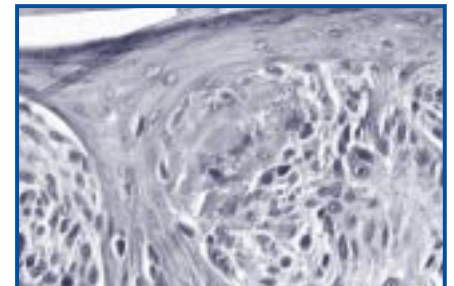
SPITZ NAEVUS

Spitz naevus is a lesion occurring predominately in children and adolescents, that despite some histologic resemblance to malignant melanoma, behaves in a benign fashion. Clinically, **Spitz naevi** are usually pink, red or reddish brown papules or nodules which demonstrate rapid growth over 3 to 6 months and then may remain stable for years. The face and lower limbs are common sites.

Histologically, **Spitz naevi** are composed of plump epithelioid and/or spindle cells and evaluation of architectural, cytologic and, in some cases, immunohistochemical

features allow a distinction from malignant melanoma to be made. This distinction becomes difficult to make with certainty in some lesions that show histologic features at odds with the classical **Spitz naevus**.

Such cases designated **atypical Spitz naevi**, are considered of uncertain malignant potential and are generally treated by complete excision and clinical follow up.



Spitz Naevus
Nests of spindle shaped and epithelioid melanocytes. Kamino bodies present.

Closely related to the **Spitz naevi**, the **pigmented spindle cell naevus of Reed** is a benign naevus that presents particularly on the thighs of young females as a darkly pigmented lesion.

CONGENITAL MELANOCYTIC NAEVUS

Congenital melanocytic naevi occur in 1 to 2% of all newborns and a proportion of naevi that arise before five years of age resemble congenital naevi clinically and pathologically (**congenital type or early onset naevi**). Small (<1.5cm) and medium sized (between 1.5 and 20cm) **congenital naevi** probably have a slightly increased risk of malignant degeneration

continued overleaf

when compared to acquired naevi, although the degree has not been established.

A rate of malignant degeneration of 4 to 6% has been estimated for giant (>20cm) **congenital naevi** and in one study 50% of melanomas occurred before puberty. The issues of surgical management and clinical follow up therefore require early specialist consultation.

DERMAL DENDRITIC MELANOCYTIC LESIONS

Dermal dendritic melanocytic lesions are derived from melanocytes whose embryonic migration from neural crest to epidermis has arrested in the

dermis. The prototypical lesion is the **blue naevus**, its colour attributable to the site of pigment deep within the dermis. The **common blue naevus** is a small blue or blue-black macule or papule occurring at any site. The **cellular blue naevus** is a larger nodular lesion occurring particularly on the buttocks, extremities, scalp and dorsal aspects of the hands and feet. The **Mongolian spot** is the most common congenital dermal melanocytic lesion. These lesions are all benign and the major pathologic issue that (rarely) arises is separation from the rare malignant **blue naevus** and blue naevus-like metastatic melanoma.

SUMMARY

1. *Benign melanocytic lesions require distinction from dysplastic and malignant lesions.*
2. *Where clinical features are not definitive, biopsy (excisional where clinically appropriate) will usually allow accurate diagnosis.*
3. *Rare lesions (such as atypical Spitz naevi), despite rigorous evaluation, will remain of uncertain malignant potential.*

References

- Mackie, RM (1998) Melanocytic Naevi and Malignant Melanoma in RH Champion (Ed) Textbook of Dermatology (6th Edition), pp 1717-1752, Oxford, Blackwell Science.
- Weedon, D (2002) Skin Pathology, London, Churchill-Livingstone.
- Shimek, CM, Golitz L (1999) The Golden Anniversary of the Spitz Naevus, Arch Dermatol; 135 (3):333-335.

Introduction of Rh (D) Antenatal Prophylaxis for Primigravidae Women Using WinRho SDF

In March 1999 the National Health and Medical Research Council issued Guidelines on the Prophylactic Use of Rh (D) Immunoglobulin (Anti-D) in Obstetrics which suggested ways to balance best practice in the use of Anti-D with a limited national supply.

CSL Ltd has, in addition to its normal 625 IU dose, developed a 250 IU dose of Anti-D (Minidose) for use in First Trimester and has imported WinRho SDF, a 600 IU dose from Canada. All three doses are registered with the Therapeutics Goods Administration. The additional supply of product has allowed for the introduction of antenatal prophylaxis for Rh negative women who are having their first baby reaching at least 28 weeks gestation. This is the first stage of a three stage process towards universal antenatal prophylaxis using solely domestic Rh (D) Immunoglobulin.

To ensure the most efficient use of these resources, the integrity of supply and taking into account the national focus for increased domestic production, it is essential that the three products be used as indicated below unless alternative supply arrangements are made:

1st Trimester Indications (<12 wks) Rh (D) Immunoglobulin **250 IU**

2nd & 3rd Trimester Indications Rh (D) Immunoglobulin **625 IU**

Antenatal Prophylaxis

(at 28 & 34 wks in women who are Rh negative having their first baby reaching at least 28 wks gestation)

Rh (D) Immunoglobulin **625 IU**

Postnatal Prophylaxis

WinRho SDF_ **600 IU**

Further advice on stages two and three of the introduction of universal antenatal prophylaxis for all Rh (D) negative women will be provided as additional supplies of domestic products become available.

For further information on Anti-D or to order any of the products, please contact your local Australian Red Cross Blood Service Centre on 13 14 95 or the QML Blood Bank on (07) 3840 4424.

t h e skin team 2003

QML is proud to introduce the specialist services of our new Histopathology skin team.

With more than 30 years experience throughout Australia and internationally, the QML Skin Team is one of the most qualified and accomplished histopathology teams in the country.

Supported by a network of 2,000 staff, 27 laboratories and over 160 collection centres, QML skin pathologists have access to the latest diagnostic technology, ensuring results and specimens are accurately processed in a timely and efficient manner.

In 2003, QML will continue to provide superior diagnostic pathology services to GPs and specialists.

Dr Rohan Mortimore, Dr Inara Strungs and Dr Jeffrey Searle are available for consultation and invite you to contact the QML Histology department for any queries on (07) 3840 4495.



DR ROHAN MORTIMORE MBBS[HONS] FRCPA

Dr Rohan Mortimore joined QML in November 2002, boosting the ranks of the Histopathology Department to 13 pathologists. Dr Mortimore is now part of the 'QML Skin Team', working alongside Dr Jeffrey Searle and Dr Inara Strungs.

Dr Mortimore graduated with honours from the University of Queensland in 1992. He went on to train in anatomical pathology at the Royal Brisbane and Prince Charles Hospitals, attaining his fellowship in 1999.

Subsequently, Dr Mortimore worked in private pathology developing an interest in Dermatopathology.

He has published in the Australian Journal of Dermatology, and maintains a keen interest in the latest advances in dermatopathology.



DR JEFFREY SEARLE BSc MBBS MD FRCPA

Dr Searle graduated from the University of Queensland in 1969, and began postgraduate training in pathology at the Royal Brisbane Hospital. During his training in anatomical pathology, he began a research project into Apoptosis under the supervision of Professor John Kerr. He received his fellowship in 1973, and was awarded an MD for his research in 1975. In 1977 he became staff pathologist in the Division of Anatomical Pathology at the RBH, becoming senior pathologist in 1983, and Director of the division in 1991. Dr Searle has been involved in collaborative research with Professor Kerr and various members of QIMR, with many articles published in medical scientific literature.

He joined QML in August 2002, with special interests in gastrointestinal pathology (including hepatology) and renal biopsy interpretation. Dr Searle also maintains an active involvement in Dermatopathology.



DR INARA STRUNGS MBBS FRCPA BA (HONS)

A graduate of the University of Queensland (1981), Dr Strungs became resident medical officer at the Royal Brisbane and Royal North Shore Hospital in Sydney. She trained in pathology at the Queen Elizabeth Hospital, Adelaide, from 1985 to 1990 before obtaining her fellowship.

Between 1991-96, she was appointed staff pathologist at Toowoomba Base Hospital. From 1996-2000 she was visiting medical officer at the Princess Alexandra and Nambour Hospitals, and a locum at Prince Charles and Ipswich Hospitals, before becoming a staff pathologist at Gramp Skin Pathology in Adelaide from 2000 to 2001.

Dr Strungs joined QML in November 2001, and her special interests include Skin Pathology.

Fond Farewell to Dr Ross Forgan-Smith

It was with much sadness we bid farewell to Dr Ross Forgan-Smith after more than 26 years of dedicated service to Queensland Medical Laboratory. Dr Forgan-Smith joined QML in 1976 becoming Partner-in-Charge of Microbiology. He was involved in many professional organisations and committees throughout his time at QML, and will be sorely missed by all that worked with him.

In a recent letter to doctors he stated "QML is now well established and is staffed by competent and industrious staff, thus I am confident that the laboratory will continue to produce excellent work in the future."

Dr Forgan-Smith has enjoyed a long association over the years with many referring doctors and wished to thank them for their ongoing support. He will now take a new direction in life, performing charitable works for Karuna Hospice Service.



COLLECTION CENTRE NEWS

REGENTS PARK
is now CLOSED.

Nearest alternate location:

BROWNS PLAINS

Shop 2
Plains Junction Shopping Centre
Browns Plains Rd

Opening Hours:
Mon-Fri 7am-6pm
Sat 8am-12pm

(07) 3800 0080

SOUTHPORT

Previously in Railway St,
has relocated to:

Southport Medical Centre
100 Marine Parade

Opening Hours:
Mon-Fri 8am-1pm
2pm-4:30pm

(07) 5532 6429

NEW CLINICS

NERANG

Shop 10A, Earle Plaza
Cnr Price & White St

Opening Hours:
Mon-Fri 8am-1pm
2pm-4:30pm

(07) 5596 3868

AYR

2A/10A Chippendale St

Opening Hours:
Mon-Fri 8am-6:30pm
Sat 8am-11am

(07) 4783 5311

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