



Vascular Lesions

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INDIAN + COUNTRY

ECHO

LEADING THE WAY 

*Growing the Ability to Deliver Quality Healthcare to
American Indian and Alaska Native People.*

Overview

- I. Case based review of common vascular lesions in children
- II. Review prognosis of these lesions
- III. Discuss indications for treatment



CASE 1



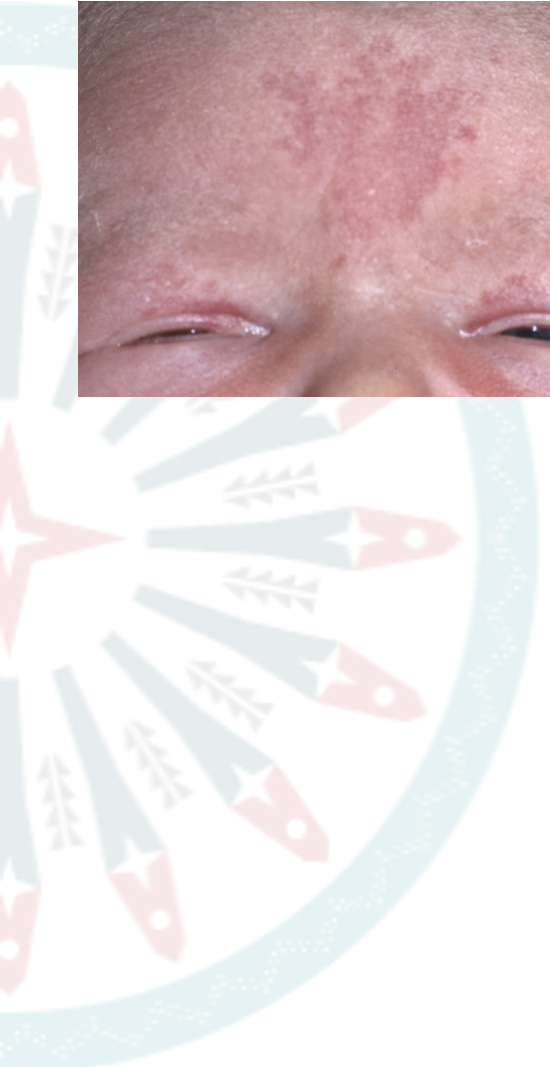
NEVUS SIMPLEX

Nevus simplex (salmon patch)

- The most common vascular lesion seen in 30-40% of infants
- Facial lesions are also called “angel’s kiss” and neck lesions “stork bite”
- Lesions on face fade within 1-2 years
- Lesions on neck and occiput will persist
- Treatment
 - None needed
 - For persistent lesions in cosmetically sensitive areas can consider PDL (pulse dye laser)
 -



NEVUS SIMPLEX



CASE 2



PORT WINE STAIN

Port Wine Stain

- Present in 0.3 – 0.5% of births, always present at birth
- Initially flat during childhood but then areas may undergo hypertrophy
- When V1 or V2 are involved can be associated with **Sturge-Weber syndrome**
 - Glaucoma
 - Seizures
 - Mental retardation
- Treatment: PDL (pulse dye laser)



PORT WINE STAIN

Risk of Sturge-Weber depends on distribution



Figure 5.1. Distinctive forehead PWS phenotypes.

- Very high risk (forehead bilateral).
- High risk (> 50% of hemi-forehead).
- Low risk (localized linear).

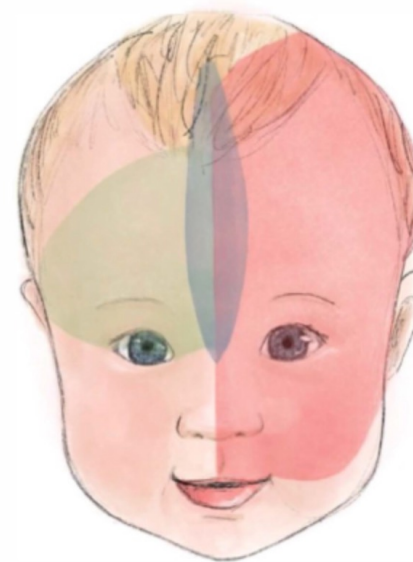


Figure 5.2 High-risk facial PWS phenotypes.

- Hemifacial.
- Forehead & upper eyelid.
- Medial.

PORT WINE STAIN

If in high risk distribution must be referred to ophthalmology due to risk of glaucoma



PORT WINE STAIN

In adults port wine stain becomes thicker, therefore need for PDL at a young age



CASE 3



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PYOGENIC GRANULOMA

Pyogenic granuloma

- Acquired vascular lesion often in older children
- Commonly on head or extremities
- Occurs as a result of trauma and healing response
- Rarely resolves spontaneously
- Treatment: traditionally surgery with electrocautery
 - Can also consider new salt treatment method



PYOGENIC GRANULOMA



CASE 4



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INFANTILE HEMANGIOMA

Infantile Hemangioma

- 10-30% of all infants, often in girls and premature infants
- Often not present at birth or may appear as macular erythema
- Proliferates until 6 months of age, then plateaus, then involutes between 1 year and 10 years
 - Involution is not resolution – may still have telangiectasia, fibrofatty tissue



INFANTILE HEMANGIOMA

Infantile Hemangioma

- Types:



Superficial



Mixed



Deep

INFANTILE HEMANGIOMA

Infantile Hemangioma

- Fibrofatty tissue and telangiectasia after involution



INFANTILE HEMANGIOMA

- **Complications: systemic therapy warranted**
- Peri-ocular
 - Vision obstruction, amblyopia
- Beard area
 - Airway hemangioma
- Genital
 - Ulceration
- Midline paravertebral
 - Underlying spinal dysraphism
- Large lower body segment
 - LUMBAR syndrome
- Large facial segment
 - PHACES syndrome
- Multiple >6
 - Visceral hemangioma (liver) -> hypothyroidism



INFANTILE HEMANGIOMA

Infantile Hemangioma

- Beard area -> laryngeal involvement



INFANTILE HEMANGIOMA

Infantile Hemangioma

- Large facial lesion -> PHACES
- Posterior fossa malformation
- Hemangioma
- Arterial anomalies
- Coarctation of the aorta and cardiac defects
- Eye / endocrine abnormalities,
- Sternal defects



INFANTILE HEMANGIOMA

Infantile Hemangioma

- Large lower body lesion -> LUMBAR
- Lower body hemangioma
- Urogenital abnormalities
- Myelopathy
- Bony deformities
- Anorectal malformations / arterial anomalies
- Rectal anomalies



INFANTILE HEMANGIOMA

- **Treatment**
- For small uncomplicated lesions:
 - Topical timolol apply one drop twice daily with feeds
- For larger or complicated lesions
 - Oral propranolol (FDA approved for children over 5 weeks)
 - Do not start if has PHACES or history of heart disease, asthma until consulting with relevant specialist
 - Most common side effects: hypoglycemia (give with food), sleep disturbance, rarely hypotension, bradycardia



INFANTILE HEMANGIOMA

Would you recommend observation, topical timolol, or oral propranolol?



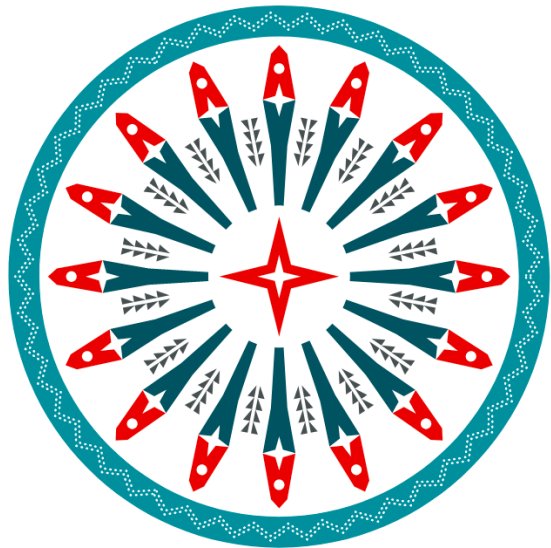
VASCULAR LESIONS

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Thank You!



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