Infantile Hemangiomas

DEFINITION

1. The **most common tumor of infancy**
2. A **benign vascular lesion** characterized by **abnormal growth of endothelial cells** and **aberrant blood vessel architecture**
3. Referred to as a **"strawberry mark"** considering its similar appearance

EPIDEMIOLOGY

- **Incidence:** 4-10% by 1 year
- More common **if premature** or **low birth weight**
- 3:1 **female**-to-male
- Location:
  - Head/neck – 60%
  - Trunk/abdomen – 25%
  - Extremities – 15%

COMPLICATIONS

- **Ulceration**: Most common (<5%)
- **Bleeding**: Pressure-responsive, rarely requires surgical ligation
- **Infection**: Common in intraoral or perianal hemangiomas
- **High-output HF**: associated with large liver hemangiomas

PRESENTATION

Significant Clinical Heterogeneity in Appearance

- ❑ Small, red lesions vs large, bulky tumors
- ❑ First noticed as telangiectasia or area of pallor
- ❑ Not present at birth, typically 1-2 weeks later
- ❑ Bright red plaque-like or rounded nodules

Differential Diagnosis: Other Vascular Lesions

- ❑ Congenital hemangioma
- ❑ Capillary malformation
- ❑ Pyogenic granuloma

CLINICAL COURSE

Nascent: "Herald spot" presents as red patch
Early Proliferative (1-5 months): Rapid growth of initial lesion
Late Proliferative (5-9 months): Slowing of growth and bright red color transitions to purple
Plateau (6-15 months): No change in colour, patch grows proportionately to child
Involution (9-36 months): Hemangioma reduces in mass, the lesion flattens and color fades with graying of affected area, usually left with fibrofatty remnant

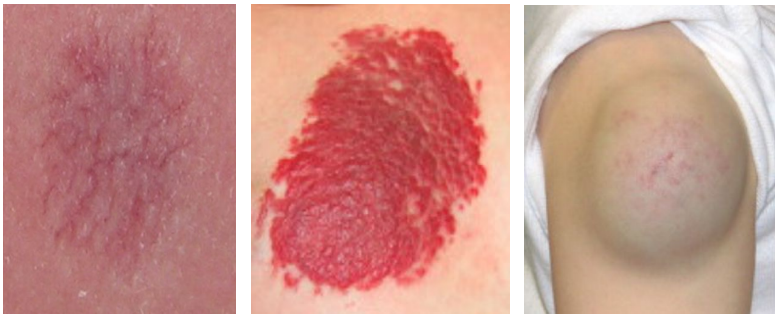
Clinical Pearl: Timing of resolution
"50% by 5, 70% by 7, 90% by 9"

INVESTIGATIONS

Diagnosis typically made clinically based on presentation and timeline

- Presence of 5+ hemangiomas requires ultrasound to evaluate for involvement of liver
- **PHACE** Syndrome: constellation of **P**osterior fossa malformations, **H**emangioma, **A**rterial abnormalities, **C**ardiac defects, **E**ye abnormalities

Initial Lesion | **Superficial Lesion** | **Deep Lesion**



MANAGEMENT

Conservative:
- Appropriate for **most** infantile hemangiomas
- Clinical course is **typically self-limiting**
- Monitoring of lesion to ensure **progressive resolution**

Pharmacological: **Propranolol** can be initiated once over 2 months old (corrected age)
Indications:
- Painful or bleeding and ulcerated
- Nasolaryngeal obstruction
- Visual disturbance
- Auditory canal obstruction
- Involvement of aesthetic areas

Surgical: May be excised during the proliferative phase if the associated **symptoms are severe**, there is **refractory ulceration**, or there is **concern of mass effect**
- Excision is typically performed once the hemangioma has involuted

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