Infantile Hemangioma (IH)

Children's Hospital LOS ANGELES CARE NETWORK

Questionable diagnosis of IH
- Fully-formed at birth (congenital hemangioma or vascular anomaly)
- Atypical clinical characteristics
- Deep tumor of unclear diagnosis (sarcoma, neuroblastoma, etc.)

No →

Presence of following?
1. Functional impairment: visual compromise, feeding or breathing difficulties (stridor), etc.
2. Presence of ulceration/scabbing
3. Concern for long-term fibrofatty/ telangiectatic scar in cosmetically sensitive area
4. Specific characteristics
   - Central face or ears
   - Breast in girls
   - Midline lumbosacral
   - Size ≥ 4 cm (focal or segmental)
   - Number of IHs ≥ 5

No →

Calculate referral score:

1. Location of IH
- Other facial areas than previously mentioned (**3 points**)
- Neck, diaper area, scalp (**2 points**)

2. Size of biggest IH
- ≥ 1 cm on other facial area than those mentioned previously (**3 points**)
- 2-4 cm on other body area than those mentioned previously (**2 points**)

3. Current child age and growth of IH
- Infant is < 2 months (**3 points**)
- Infant is ≥ 2 and ≤ 4 months, with an evident growth within the last 2 weeks (**2 points**)

Yes ↓

Refer to Pediatric Dermatologist
*Indicate "possible IH" in referral diagnosis for expedited appointment

Yes ↓

Liver ultrasound
- Recommended if ≥ 5 IHs to evaluate for hepatic IH

Score ≥ 4

Score ≤ 4

Monitor IH and re-score at every visit
- Follow-up monthly for first 3-6 months, then very 2-3 months until 1 year old
- Higher frequency if rapid growth/concerning changes
- Refer to Dermatology if rapid growth or new functional deficits

Oral propranolol treatment
- Timely referral when infant **< 3 months old** essential
- Start ASAP for functional impairment if appropriate or rapid growth.
- Can start outpatient when infant **> 5 weeks old**

- (Inpatient initiation required if <5 weeks old)
  - As an outpatient for older infants, a dose of 2-3mg/kg/day divided BID or TID can be considered after consultation with dermatology; baseline BP and HR should be measured beforehand.
  - Potential side effects and monitoring include hypoglycemia, bradycardia, hypotension, bronchospasm, sleep disturbance, GI upset, and cool hands and feet.

In addition to Dermatology referral:

If concern for PHACE syndrome
- Cardiac ultrasound
- Ophthalmology consult
- MRI/MRA of brain and neck

If concern for LUMBAR syndrome
- MRI/MRA of spine, pelvis, and lower extremities

Consider topical timolol solution
- Most effective for flat superficial IHs
- Maximum 2 drops twice daily for entire body

Adapted from:Léauté-LabrèzeC, BaselgaTorres E, Weibel L, et al. The Infantile Hemangioma Referral Score: A Validated Tool for Physicians. Pediatrics. 2020;145(4):e20191628.