Diagnosis: VASCULAR BIRTHMARKS

INFANTILE HEMANGIOMAS

GENERAL INFORMATION:
- Infantile hemangiomas have a natural proliferative phase, when there is rapid growth and thickening. Superficial hemangiomas (“strawberry” hemangiomas) typically experience the majority of growth in the first 8 weeks of life. Deep hemangioma may have a longer proliferative phase that can last up to 6 months.
- After the first year of life, most hemangiomas are well underway in the involutional phase. The majority of hemangiomas have undergone nearly complete resolution by 4-6 years of age.

REFERRAL RECOMMENDATIONS:
- Please refer all hemangiomas for topical or systemic therapy may be beneficial or if there is significant parental anxiety
- The following hemangioma warrant expedited appointments. If you feel your patient needs to be evaluated within 1 week, please contact the on-call dermatologist through the TCH page operator.
  - Ulcerated (see page 2 for recommendations while awaiting dermatology evaluation)
  - Possible functional compromise (e.g. eyelid, beard distribution)
  - High risk for cosmetic sequelae (e.g. nasal tip hemangioma, large hemangiomas with tapered base)
  - Large segmental hemangioma on face or lower body warranting imaging to rule-out PHACES or LUMBAR/PELVIS syndrome.
  - >6 Hemangiomas (please consider obtaining an abdominal ultrasound to rule out hepatic involvement prior to referral)

CAPILLARY MALFORMATION (PORT-WINE STAINS)

GENERAL INFORMATION:
- Capillary malformations persist through life, unlike infantile hemangiomas.
- Capillary malformations on the face can be associated with thickening over time. Laser therapy may help minimize future potential thickening of the capillary malformation.

REFERRAL RECOMMENDATIONS:
- Port-wine stains (especially ones located on the face, or with extensive body involvement) may be appropriate for consultation regarding diagnosis, potential risks and potential laser treatment
  - If there is a high suspicion for Sturge-Weber syndrome, please also refer to neurology.
  - Laser treatments are probably most effective when started early

Educational recommendations are made from the best evidence, expert opinions and consideration for the patients and families cared for by the service. This is NOT intended to impose standards of care preventing selective variation in practice that are necessary to meet the unique needs of individual patients. The physician must consider each patient’s circumstance to make the ultimate judgment regarding best care.
**Treatment Recommendations for Ulcerated Hemangiomas**

Ulceration most commonly occurs during the hemangioma growth phase (e.g. first several months of life). Large, superficial (red) and raised hemangiomas in trauma-prone locations (lip, diaper area, back) are particularly susceptible to ulceration.

**Treatment is recommended as soon as ulceration is suspected or noted. Do not wait for dermatology appointment to begin treatment.**

1. **Preventative care** for dry, flaky, or dark skin that is intact (no opening, bleeding or drainage) but showing signs of potential ulceration, or for high-risk hemangiomas as noted above, even without signs of ulceration:
   - Gently cleanse affected area once daily. (via immersion, spray bottle or running soapy water over area). Gently pat dry.
   - Apply a thick area of petrolatum and repeat throughout the day (reapplication with each diaper change is a good rule of thumb)

2. **Initial wound care for ulceration:**
   - Gently cleanse affected area once daily (via immersion, spray bottle, or running soapy water over area). Gently pat dry.
   - Apply thick layer of mupirocin* twice daily followed by thick layer or petrolatum. Repeat application of petrolatum throughout the day (reapplication with each diaper change is a good rule of thumb).
   - For hemangioma ulceration in diaper area:
     - Same instructions as above, but alternate mupirocin* with metronidazole gel (Metrogel) qam/qhs or gentamicin ointment bid
   - Cover with Vaseline gauze

3. **For pain, any or all of the below can be considered, especially prior to cleansing/wound care:**
   - Lidocaine 5% ointment: apply pea-sized amount no more than 3 times daily. Most effective when applied 20-30 minutes prior to cleansing/wound care.
   - Children’s Tylenol