

American Academy of Pediatrics Releases Report on Infantile Hemangiomas

Key Points for Practice

- Hemangiomas should be treated in the setting of a life-threatening condition, functional impairment, pain, or bleeding.
- Medical therapy includes oral propranolol, oral corticosteroids, and intralesional steroid injections.
- Delaying elective surgical resection until after infancy allows for involution and better outcomes.

From the *AFP* Editors

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A collection of Practice Guidelines published in *AFP* is available at <http://www.aafp.org/afp/practguide>.

Infantile hemangiomas, the most common tumors of childhood, are vascular neoplasms characterized by abnormal proliferation of endothelial cells and aberrant blood vessel architecture. The incidence of infantile hemangiomas is approximately 5%. Congenital hemangiomas are biologically and behaviorally distinct from infantile hemangiomas because they are fully grown at birth and can be rapidly involuting or noninvoluting. The American Academy of Pediatrics has published this report to provide an update on diagnosing and managing infantile hemangiomas.

Clinical Presentation

Infantile hemangiomas usually appear by four weeks of age and stop enlarging by five months of age. During the involution phase, which is usually complete by four years of age, the lesions flatten, shrink, and fade. Up to 70% of infantile hemangiomas lead to residual skin changes, including telangiectasia, fibrofatty tissue, redundant skin, atrophy, dyspigmentation, and scarring.

Management

Complications can include ulceration, bleeding, feeding problems if there is a perioral or digestive lesion, and visual impairment including ptosis, amblyopia, and astigmatism. Segmental hemangiomas are more likely to lead to complications, and facial

hemangiomas are more complicated than nonfacial hemangiomas. Imaging is not usually necessary, but ultrasonography is the preferred initial modality if indicated.

Interventions are needed if the patient has a life-threatening condition, an existing or imminent functional impairment, pain, or bleeding. Patients should be evaluated for structural anomalies. Elective treatment may be performed to reduce the likelihood of disfigurement. The management of ulcerative infantile hemangiomas focuses on wound care, controlling pain, controlling growth, and preventing and treating secondary infections.

MEDICAL THERAPY

Systemic corticosteroids were the mainstay of treatment until 2008 when improvement with beta-blocker therapy was reported. The U.S. Food and Drug Administration has approved the oral beta blocker propranolol for the treatment of infantile hemangiomas. A consensus report recommends initiating propranolol in a clinical setting, with cardiovascular monitoring every hour for the first two hours and repeated monitoring with dosage increases of more than 0.5 mg per kg per day for infants older than eight weeks. Inpatient initiation should be considered for infants younger than eight weeks or with a postconceptual age of less than 48 weeks and for infants with risk factors.

Corticosteroids are an alternative therapy if propranolol cannot be used or is not effective. Most studies support oral prednisolone or prednisone, 2 to 3 mg per kg per day as a single morning dose. Several months of corticosteroid therapy are often needed, and treatment is usually more successful when initiated during the proliferative phase. Intralesional steroid injections can be effective for small, bulky, well-localized infantile hemangiomas.

SURGERY

Laser therapy may be useful in treating early lesions or residual telangiectasia. Resection of a proliferating infantile hemangioma generally is not recommended in infancy because younger patients have a higher risk of surgery complications. Delaying surgery until after infancy also allows for involution and better outcomes. Most infantile hemangiomas do not improve significantly after four years of age; therefore, surgery by this age allows for correction before self-esteem and long-term memory are well established. Indications for resection in infants include failure of other therapy for a critical infantile

hemangioma, a focal lesion in a favorable location, or elective surgery leaving a scar that would be the same if the lesion were removed after involution.

Guideline source: American Academy of Pediatrics

Evidence rating system used? No

Literature search described? No

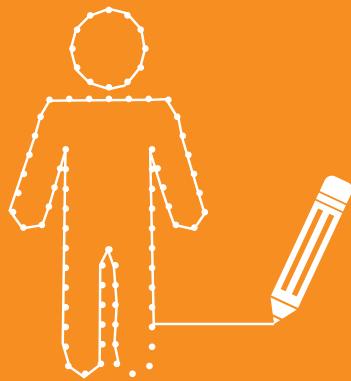
Guideline developed by participants without relevant financial ties to industry? Yes

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