

# 1 QUESTION

## WHAT IS THE NATURAL PROGRESSION OF INFANTILE HEMANGIOMAS?

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Infantile hemangiomas (IHs) are the most common tumor of infancy, occurring in approximately 4% of infants. IHs are more common in females, preterm infants, multiple gestation pregnancies, and infants of mothers older than 30 years. Caucasian race is also a risk factor. IHs are made of small, immature blood vessels. In superficial hemangiomas, the blood vessels involve the upper dermis and lead to a bright strawberry red color. Deep hemangiomas involve the deep dermis and subcutis and are skin color to blue. Mixed hemangiomas—those that involve both superficial and deeper skin structures—have both features. IHs have a unique natural history: they are flat or inapparent at birth, with a period of rapid growth during early infancy followed by gradual involution. Because of IHs' characteristic growth pattern, the clinical history is one of the most important keys to diagnosing an IH. In addition, because IHs undergo early, rapid growth, it is important to refer patients with potentially complicated IH sooner rather than later.

When evaluating a child with a possible IH, ask if it was visible the day the child was born; if it has changed since birth; if it is still growing, stable, or shrinking in size; and if it is growing proportionately or disproportionately with child's somatic growth. If there was an actual lump or thickening present the day the child was born, question the diagnosis of IH since this could represent another type of soft tissue growth such as a so-called rapidly involuting congenital hemangioma or other soft tissue neoplasm such as a kaposiform hemangioendothelioma or fibrosarcoma.

The very first sign of an IH (a premonitory or precursor mark) sometimes presents at or shortly after birth as a discoloration of the skin—a persistent red spot, an area of pallor, telangiectasias, or a bruise that initially may be attributed to perinatal trauma. The more easily recognizable superficial proliferative phase of IH is often noticed within the first few weeks of life. The initial shape of the hemangioma (either the precursor lesion or the early proliferative phase) typically has the shape and configuration of the fully grown hemangioma (Figure 1-1). IHs “mark out their territory” early in life, and once that territory is delineated, growth is volumetric rather than radial.