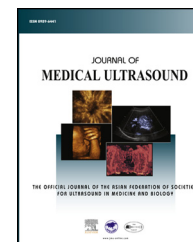


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## IMAGING FOR RESIDENTS

# A Mass on the Lower Calf of a 2-year-old Baby — Subcutaneous Hemangioma

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## Section 2—Answer

A 2-year-old boy, who had had a mass at his right lower calf since birth, presented to our hospital (Fig. 1). He was referred for ultrasound examination. Fig. 2 shows the gray-scale sonographic image of the mass in the short axis view without compression. Power color Doppler images were taken of the mass in the long axis view without compression (Fig. 3), during compression (Fig. 4), and during release from compression (Fig. 5). The diagnosis was a subcutaneous hemangioma.



Fig. 1 The mass on the lower right calf.

## Discussion

Infantile hemangiomas are one of the most common soft tissue tumors in infants, most of which gradually decrease in size when the children grow up. They usually occur at the head and neck region. Hemangiomas of the extremities are less common [1]. Most superficial hemangiomas have a typical strawberry appearance with a well-defined border, although the overlying skin appears normal in some deeply situated hemangiomas [2]. Typical sonographic findings are

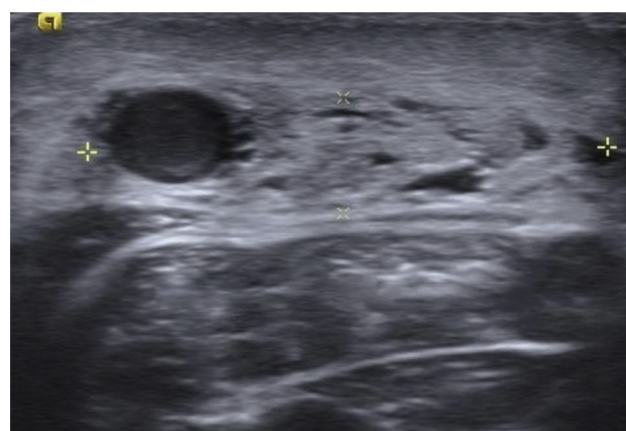


Fig. 2 Short axis view in gray-scale mode.

Conflicts of interest: The authors declare no conflicts of interest.

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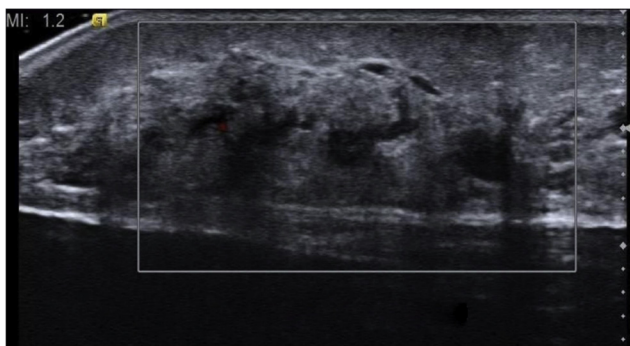


Fig. 3 Doppler image of the mass without compression.

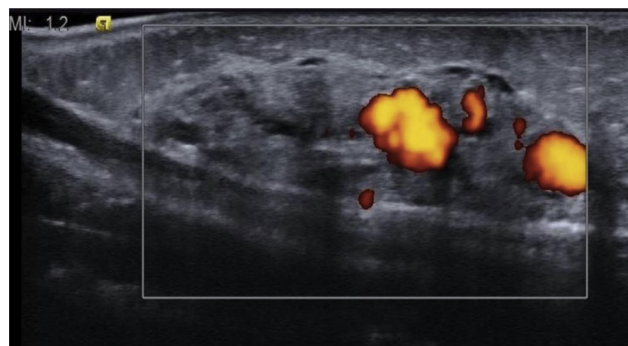


Fig. 5 Doppler color image of the mass on releasing compression.

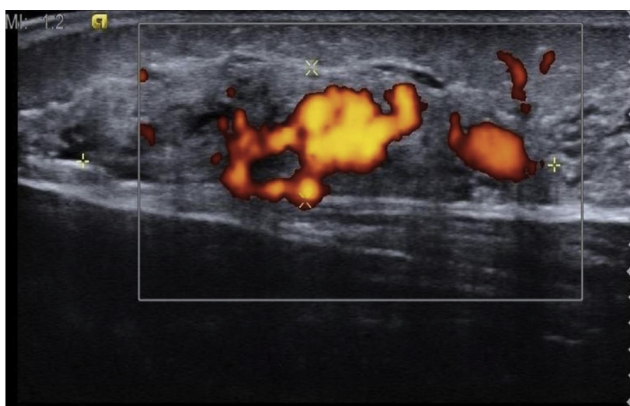


Fig. 4 Doppler color image of the mass while compressed.

heterogenous echogenicity, ill-defined margins, mixed solid and cystic compositions, hypervascularity, and good compressibility [3,4]. The use of color or power Doppler modes is crucial for the diagnosis [5]. Flow in hemangiomas is usually low in velocity [5,6], however, the Doppler signals are barely detected if the probe is held statically. The maneuver of compression and decompression mobilizes the blood and transiently enhances the Doppler signal intensity

inside the tumors. In the present case, a tumor composed of solid and cystic components with a discrepancy in power Doppler signal presentations prior to and after dynamic compression led to the diagnosis of a superficial cavernous hemangioma.

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