A Curious Case of Multiple Lower Limb Swellings

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A 24-year-old young man presented with a history of three swellings on the right lower limb for the last 4 years. Multiple patches of reddish-purple discoloration had been noticed by his parents in infancy over the sites of present-day swellings. These patches persisted and remained static with respect to size till the age of 20 years, when they started growing to become large solid swellings. The swelling on the dorsum of the foot was the first to appear, followed by another on the mid-anterolateral leg and finally one on the anterior knee region (►**Fig. 1a, b**). The main complaints of the patient were pain, ulceration, aesthetic deformity, and inability to wear his shoe.

On local examination, the swelling on the dorsum of the foot extended onto the dorsum of the medial four toes distally and proximally almost up to the ankle and measured 13 cm × 8 cm × 3 cm. Medially, it reached up to the sole skin and laterally spared a small strip of skin on the fifth ray. It was hard in consistency with no mobility over the underlying structures. The overlying skin was reddish-purple in color and adherent firmly to the swelling, with ulcerations at places. There was another one on the mid-anterolateral leg (12 cm × 9 cm × 3 cm) and one on the anterior knee (11 cm × 8 cm × 1 cm). They were well defined, with hard consistency and a few areas of ulceration on the surface. These were freely mobile over the underlying muscles and nonpulsatile on palpation.

Hematological investigations were within normal limits. Ultrasonography, computed tomography (CT) angiography, and magnetic resonance imaging (MRI) could not differentiate between vascular lesion and soft-tissue tumor (►**Fig. 2**). An excision biopsy of all the three tumor masses was done under regional anesthesia. There were excellent planes of dissection between the lesions and the underlying muscle fascia/paratenon (►**Fig. 3a**). The surgically created raw areas were covered with intermediate-thickness split skin grafts (►**Fig. 3b**). All the lesions showed features of hemangioma on histopathology without any evidence of malignant change.

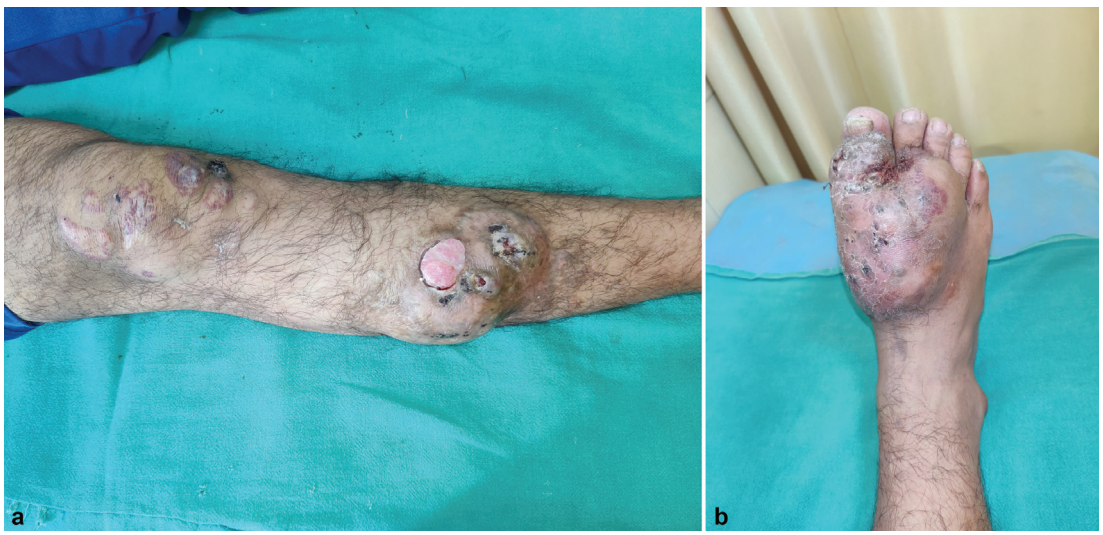

Fig. 1 (**a**,**b**) Swellings on the right knee, mid-anterolateral leg, and dorsum of the foot with few sites of ulceration.

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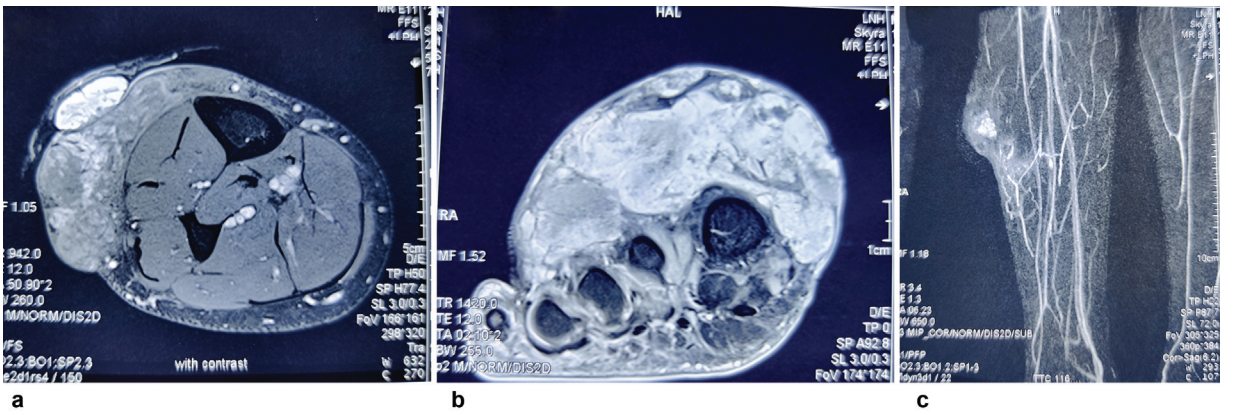

Fig. 2 (**a**,**b**) Magnetic resonance imaging (MRI) cross-section at the level of the mid-leg and distal foot. MRI showed lobulated soft-tissue mass lesions in the subcutaneous plane, iso- to hyperintense to muscle on T1-weighted imaging (T1WI) and heterogeneously hyperintense on T2/short tau inversion recovery (STIR) images, appearing multilobulated with T2 hypointense septa. Few T1 hype-intense foci were seen, likely hemorrhagic foci. Heterogenous enhancement was noted on postcontrast images, suggestive of sarcomatous changes in a long-standing soft-tissue tumor. (**c**) Computed tomography (CT) angiography showing well-defined, near homogenous, minimally enhancing soft-tissue lesion on the mid-right leg with a few feeders from the anterior tibial artery.

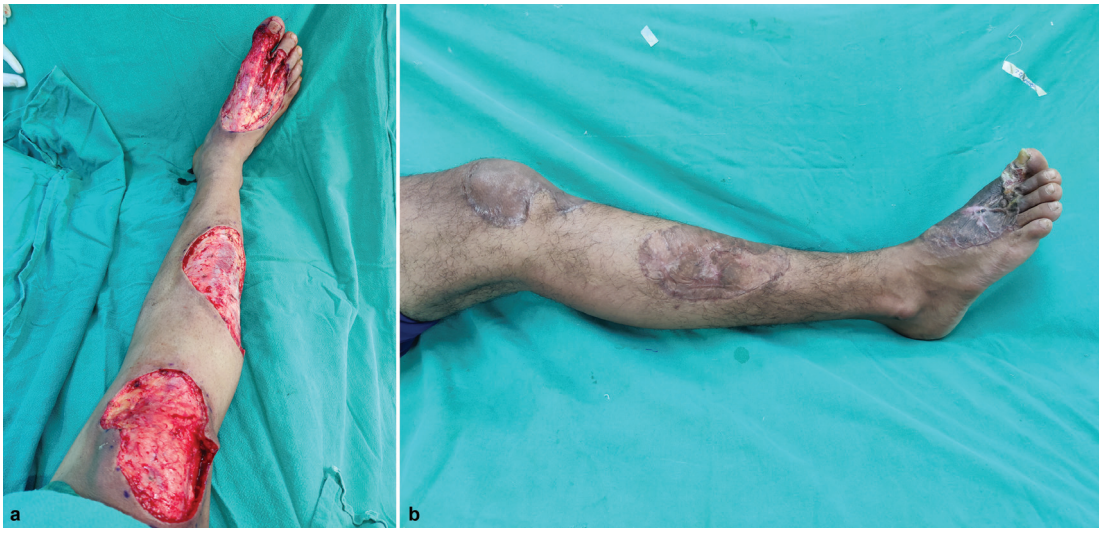

Fig. 3 (**a**) Intraoperative image with the surgically created raw areas. (**b**) Three months postoperative photograph showing well-taken-up grafts.

The spectrum of features of hemangioma may range from simple macular telangiectasias to bosselated soft to firm swellings.[1] When involving the superficial skin, they may show reddish hue, while bluish hue is seen when deeper skin and subcutaneous tissues are involved.[1] Only around 15% of all infantile hemangiomas occur on the extremities, while the maximum occur in the head and neck region (60%).[2,3] Presentation in the adult age group as swellings that are unusually hard in consistency, thus masquerading as soft-tissue tumor, as in our case, is unusual.

Involution, seen clinically as centrifugally spreading pallor and compressibility, is achieved at the rate of 10% per year. The usual residual changes described are atrophic scarring, lax skin, telangiectasia, yellowish discoloration of skin, etc., which persist in almost half of the patients.[4,5] In the present case, there was a deviation from the typical natural history of a hemangioma. Instead of involution, the hemangioma stayed passive for a very long period of nearly 20 years followed by growth in all the three dimensions.

Conflict of Interest
None declared.

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