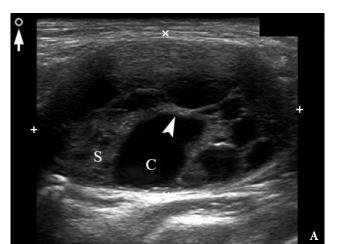


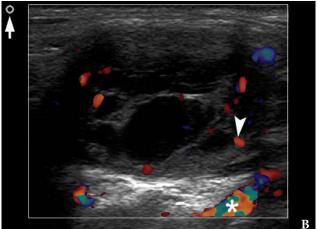
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I Hemolymphangioma of the Neck

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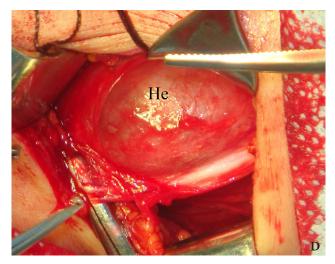
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A 26-year-old female patient presented with a painless soft tissue mass at the lower third of the right neck. The mass appearance and growth was noted during last several years. Longitudinal grayscale ultrasound (US) showed that long-to-short diameter of this cystic lesion measured 3.51 \times 2.12 cm (distances are indicated by even calipers '+' and 'x') (Panel A: arrow, position of the probe's side which corresponds to the probe bump and symbolizes the probe side [arrow] at Panel C; arrowhead, septa; C, cystic component; S, solid component). Lesion is visualized as a multicystic mass (hypoechoic with multiple anechoic areas) with septations and a prominent mixed structure (combination of macro- and microcystic cavities). A honeycomb US pattern¹ and no vascular fill of the anechoic areas (Panel B: arrow, position of the probe's side; asterisk, neck vessel; arrowhead, weak intratumoral blood flow), most likely represented a lymphangioma². Typically, the strong flow signal is noted from 9.30 to 59.37 percent of hemangioma cases.^{3,4} The artifact of acoustic enhancement—common for the fluid-containing structure—was noted posteriorly to the lesion. The fact that the tumor cannot be compressed using probe indicates that the cystic structure differs from the cystic structure of reported US features of cavernous lymphangiomas (sponge-like neoplasms)5. The capsulated lesion (Panel D: He, hemolymphangioma) was surgically removed under general anesthesia applying the incision along the anterior margin of the right sternocleidomastoid muscle. During tumor removal, light-gray fluid content was partially evacuated due to the rupture

of cystic wall. Panel E shows a specimen—the decreased in volume mass—after the evacuation of its cystic content. The spaces of the intratumoral indicated macrocysts are by arrowheads. Histopathological examination established the diagnosis of a 'hemolymphangioma' (also known as 'hemangiolymphangioma'6,7). The patient showed no signs of recurrence at the end of the 36-month follow-up period. Li et al (2017) emphasized that it's crucial to perform such preoperative imaging, which can help to avoid biopsy upon differential diagnostics between lymphangiomas and vascular malformations with numerous vessels (which can lead to intensive bleeding).8 In summary, hemolymphangioma is a very rare mixed malformation of both blood and lymphatic vessels.9 Ohsawa et al (2018) concluded that complete excision of hemolymphangiomas provides the best results with a lower recurrence rate. 10 Diagnostic ultrasound and its Doppler option proved efficacy in case of such malformations. • DTJournal.org

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