Soft-tissue osteoma in the neck paravertebral space

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Abstract: Osteoma is a rare, slow-growing benign neoplasm located primarily in the skeleton. Soft-tissue osteoma is exceedingly rare. We report a case of soft-tissue osteoma occurring in the neck paravertebral space in a 25-year-old man. CT examination demonstrated a cancellous densely ossified mass in the right side of neck paravertebral space, with irregular lobulation and clear margin, but without relation to the adjacent vertebrae. The mass was resected, and the pathology confirmed soft-tissue osteoma.

Key Words: Soft-tissue osteoma; computed tomography



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A 25-year-old man had two years' history of a hard mass in right neck. Physical examination revealed a hard, movable and nontender mass. The regional lymph nodes were non-palpable. The laboratory tests, chest radiograph and electrocardiogram were unremarkable. CT examination demonstrated a cancellous densely ossified mass in the right side of neck paravertebral space measuring 2.5 cm × 4.3 cm × 6.5 cm. The mass was irregular lobulated with a clear margin, and surrounded by adipose tissue and muscles, but without relation to the adjacent vertebrae (*Figure 1, 2*). The mass was completely resected. The histological examination showed the tumor was composed of matured trabecular bone, osteoblast cells, adipose tissue and hematopoietic tissue (*Figure 3*). Histological examination indicated the diagnosis of soft-tissue osteoma.

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Figure 1 Axial CT images at soft tissue window (A) and bone window (B) depict a cancellous densely ossified mass in the right neck paravertebral space, with irregular lobulation and clear margin, surrounded by adipose tissue and muscles, and without direct communication with native vertebrae



Figure 2 Coronal (A) and sagittal (B) multiplanar reformations of contrast enhanced CT at soft tissue window depict the ossified mass



Figure 3 Hematoxylin-eosin stained photomicrograph of the mass (A: ×40, B: ×100) shows mature bone areas (★), hematopoietic marrow (black arrow) and adipose marrow (white arrow)

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