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Unexpected myeloid sarcoma of the tonsil in a patient without a history of hematological neoplasm

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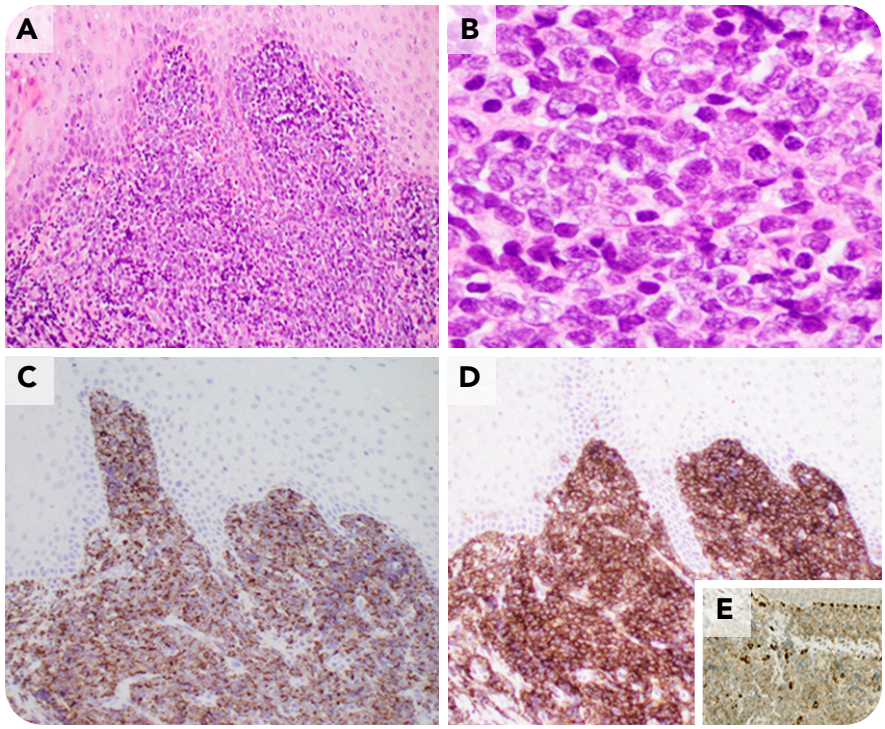

A 65-year-old man with a history of postauricular cutaneous squamous cell carcinoma presented with a 10-day history of right neck mass and pain. Computerized tomography scan showed soft tissue asymmetry of the right tonsil and multiple enlarged, partially necrotic neck lymph nodes. A complete blood count (CBC) was within normal limits. A right tonsil biopsy specimen showed infiltration by medium-size neoplastic cells with irregular nuclear contours, and immature chromatin (panel A; hematoxylin and eosin stain [H&E], original magnification ×200; panel B; H&E, original magnification ×1000). Immunohistochemical studies showed that the neoplastic cells were positive for myeloperoxidase (panel C; original magnification ×200), CD33 (panel D; original magnification ×200), CD68 (panel E; inset, original magnification ×200), and CD117 (not shown), and were negative for CD3, CD20, and cytokeratin.

This rare case demonstrates tonsillar myeloid sarcoma in a patient without a history of hematological malignancy, normal CBC, and history of squamous cell carcinoma, which is the most common cancer that occurs in the tonsils. Myeloid sarcoma is considered equivalent to acute myeloid leukemia (AML) and may occur prior to manifestations of acute leukemia in the blood and/or bone marrow. Bone marrow aspiration and biopsy 2 weeks later showed AML with myelomonocytic differentiation with a diploid karyotype and *NPM1*, *IDH1*, and *KDM6A* mutations.

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