Dermoid Cysts of the Extracranial Head and Neck: Typical and Atypical CT and MR Imaging Findings and Their Differential Diagnoses

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Purpose
Dermoid cysts in a large sense comprise epidermoid, dermoid, and teratoid cysts. They are ectoderm-lined inclusion cysts originating from the cells that later form the skin. They can occur anywhere in the body, and about 7% arise in the head and neck region. The purposes of this exhibition are to present the typical and atypical CT and MR findings of dermoid cysts arising in various locations of the extracranial head and neck and also to discuss various other cystic lesions that may simulate dermoid cysts on imaging studies.

Materials & Methods
CT and MR findings of more than 50 cases of dermoid cysts of the extracranial head and neck were reviewed. For displaying the diseases that should be included in the differential diagnosis, CT and MR findings of various congenital or acquired cystic lesions that may mimic dermoid cysts were reviewed also. The list of differential diagnosis included thyroglossal duct cysts, branchial apparatus cysts (lymphoepithelial cysts), lymphangiomas, ranulas, epithelial cysts, other integumentary cysts, cystic tumors or lymphadenopathies, and various inflammatory or infectious conditions.

Results
According to the location in the head and neck, CT and MR findings of dermoid cysts are displayed, followed by those of various other congenital or acquired cystic lesions that may occur in the same location. Discussions helpful for the differential diagnosis are presented.

Conclusion
Radiologic findings of dermoid cysts of the head and neck can vary widely according to the location, internal contents, and associated complications, such as rupture, superimposed infection, sinus tract, and secondary malignancy arising from the cyst. Not infrequently, it is hard to differentiate dermoid cysts from the various other congenital or acquired cystic lesions in certain head and neck regions by the imaging studies alone.
Excisional biopsy usually is warranted to make a definite diagnosis and to eradicate the disease.