A case of lipomatous pleomorphic adenoma in the parotid gland: a case report
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Abstract

Introduction: Pleomorphic adenoma is the most common benign neoplasm of the salivary glands. Extensive lipomatous involvement of the tumor is, however, a very rare finding.

Case report: Herein, a rare case of lipomatous pleomorphic adenoma arising in the parotid gland of a 14-year-old Japanese woman is presented.

Conclusion: This is the sixth case of lipomatous pleomorphic adenoma in the English literature. Recognition of this rare subtype of pleomorphic adenoma is important for clinical diagnosis and management. On CT scan, it may not be detected possibly due to the extensive fatty component.
area. This newly described variant is extremely rare and only five cases exist in the literature [1-5]. And this is the sixth case in the English literature. Additional file 1 summarizes the reported cases. No common symptoms of lipomatous pleomorphic adenoma were found.

Various forms of lipomatous tissue associations within salivary glands have been defined (lipoma, interstitial lipomatosis, lipoadenoma, oncocytic lipoadenoma, sialolipoma, and lipomatous atrophy). Although foci of adipose tissue are sometimes encountered within the stroma of pleomorphic adenoma, extensive replacement by adipose tissue like this case is a very rare finding. Differential diagnosis especially concerning lipoma (pure lipomatous tumor) is essential. The existence of epithelial or myoepithelial component is a diagnostic clue.

The histogenesis of lipomatous pleomorphic adenoma is not clear. Metaplastic transformation of myoepithelial cells to adipocytes and entrapment of fat tissue are two possible mechanisms.

Recognition of this rare form of pleomorphic adenoma is also important for clinical diagnosis and management. On CT scan, it may not be detected possibly due to the extensive fatty component that blends with the normal parotid gland.

Conclusion
In conclusion, a rare case of lipomatous pleomorphic adenoma is presented, which is the sixth case in the English literature. Recognition of this rare subtype of is essential for clinical diagnosis, management, and treatment.

Consent
Written informed consent was obtained from the patient for publication of this case report and accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal.
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**Competing interests**

The author declares that they have no competing interests.

**Authors’ contributions**

TK performed histological examination, analyzed the case, and wrote the manuscript.

**Additional material**

**Additional File 1**

Table 1. Summary of the reported case of lipomatous pleomorphic adenoma.

Click here for file [http://www.biomedcentral.com/content-supplementary/1746-1596-4-16-S1.ppt](http://www.biomedcentral.com/content-supplementary/1746-1596-4-16-S1.ppt)

**Figure 3**

Microscopic finding of the tumor (higher magnification). AB: More than 95% of the tumor was adipose component, containing only scant epithelial components. (HE staining. AB: ×400).