

## Misdiagnosed Mammary Analogue Secretory Carcinoma of the Salivary Gland: A Case Report with a Review of the Literature

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**Abstract :** Objectives: This study aimed to improve clinicians' understanding and diagnosis of the Mammary analogue secretory carcinoma of the salivary gland (MASC). Methods: The clinical features of a MASC patient who was admitted to WestChina Hospital of Sichuan University in July 2020 were reviewed and analyzed. A 49-year-old woman with left upper neck pain for three months was admitted to the hospital. She underwent adenoma resection of the left submandibular gland 14 years ago and mucoepidermoid carcinoma resection surgery five years ago. Three months before admission, the patient developed pain in the left mandibular angle after "fatigue" and gradually developed radiation pain in the left ear, which could be relieved after rest. A mass of 1cm could be touched at the mandibular, with tenderness, poor mobility, and hard texture. No swelling, heat, pain, rupture, or pus was found on the surrounding skin. Color doppler ultrasonography of the salivary gland indicated a weak echo mass of 23\*14\*17mm in the left parotid gland. Results: Surgical excision was completed. Immunohistochemistry of the tumor samples after operation showed that P63 (a few) +, CK7 +, S100 +, DOG1 -, Ki67 (MIB-1) + (5%) pan-TRK +, PAS(+). ETV-6 gene translocation was detected in FISH in postoperative pathology, which indicated MASC. After this diagnosis, the patient sent the postoperative specimen of the second submandibular tumor to our hospital for consultation. The morphology of the two was similar. FISH detected ETV-6 gene translocation, so the second pathological diagnosis was revised to MASC. Conclusion: MASC of the salivary gland is a rare salivary gland tumor whose diagnosis depends on the result of the ETV6-NTRK3 fusion gene.

**Keywords :** mammary analogue secretory carcinoma, ETV6-NTRK3, salivary gland, misdiagnosed

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