

# Giant Pleomorphic Adenoma of Parotis

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## Abstract

A 75-year-old woman presented with a painless giant tumor arising from the right parotis which had been slowly enlarging over a period of 20 years. The patient never complained of any symptoms. She lived in a small mountainous village and appearance was not an issue to her. An FNAB confirmed the tumor to be a Pleomorphic adenoma. Surgical treatment was offered but was declined. Two years later the tumor appears to be the same size.

## CASE REPORT

A 75-year-old woman presented with a painless giant tumor arising from the right parotis which had been slowly enlarging over a period of 20 years (picture 1). The patient never complained of any symptoms. She lived in a small mountainous village and appearance was not an issue to her. There was no evidence of tumor spread beyond the parotid gland and no cervical lymph nodes palpable. An FNAB confirmed the tumor to be a Pleomorphic adenoma. Surgical treatment was offered but was declined. Two years later the tumor appears to be the same size.

## Figure 1

Picture 1: Giant tumor arising from parotis



## DISCUSSION

Salivary gland neoplasms can occur at any site where salivary tissue is found. Pleomorphic adenoma or benign mixed tumor is the most common salivary tumor, accounting for up to two-thirds of all salivary gland neoplasms.<sup>1</sup> Approximately 85% of all pleomorphic adenomas are located in the parotid glands, 10% in the minor salivary glands, and 5% in the submandibular glands.<sup>2</sup> Pleomorphic adenomas contain both mesenchymal and epithelial cells. . Grossly, the tumors appear encapsulated but, on close inspection, have pseudopod extensions into the surrounding tissues. This growth pattern is thought to be responsible for the high rate of local recurrence (approximately 30%) when these tumors are enucleated. <sup>3</sup> Within the parotid gland, the majority of pleomorphic adenomas arise in the superficial lobe. Adequate surgical therapy involves nerve identification and protection with removal of the tumor and an adequate cuff of surrounding parotid gland parenchyma. A complete superficial parotidectomy has been recognized for years as the standard procedure in dealing with parotid gland neoplasms.<sup>4</sup> Malignant degeneration (usually to carcinoma ex-pleomorphic adenoma) is to be expected in 3-5% but the frequency is higher in recurrences and in patients with long history (the risk for tumors over 15 years is 9.5%),<sup>5</sup> Genetic alterations associated with the formation of pleomorphic adenoma have been identified. Tumor deoxyribonucleic acid (DNA) has been shown to have chromosome abnormalities involving chromosome 8q12. This region is the site of the pleomorphic adenoma gene PLAG-1. <sup>5</sup> In a series of pleomorphic adenomas, loss of heterozygosity at the loci 8q and 12q were detected in 47% and 27%.<sup>6</sup> Carcinoma ex-pleomorphic adenoma has been noted to have some of the

same genetic alterations. Investigators have noted a higher expression of p53 in patients with carcinoma ex-pleomorphic adenomas than in benign pleomorphic adenomas.<sup>7</sup>

Other common types of benign salivary glands neoplasms include monomorphic adenoma, Warthin's tumor (papillary cystadenoma lymphomatosum), oncocytoma while common malignant tumors include mucoepidermoid carcinoma, malignant mixed tumors, carcinoma ex pleomorphic adenoma, adenocarcinoma, adenoid cystic carcinoma, acinic cell carcinoma and other more rare tumors squamous cell carcinomas, malignant lymphomas and metastases usually melanomas and SCC in intraglandular and paraglandular nodes.<sup>4</sup>

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