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## **PLEOMORPHIC ADENOMA OF THE PAROTID GLAND - VARIABLES LEADING TO ITS FREQUENT RECURRENCE**

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Pleomorphic adenoma (PA) is the most common salivary tumor neof ormation. It is a benign mixed tumor and comprises 50% to 77% of all parotid tumors. It occurs more often to individuals in the age range of 30 - 60 years, predominantly in females at 60%. The high rate of tumor recurrence depends on pathological and surgical variables, which represent the key to proper tumor management.

Study and identification of pathological and surgical variables that may lead to recurrent pleomorphic adenoma.

PA is classified in three types, based on the proportion of epithelial component in the tumor mass: myxoid - up to 20%; classical - balanced ratio with the stroma; cellular - 70-80%. The histopathological examinations, show that frequent tumor recurrences occur in the myxoid type of PA. This type prevails in the younger age group and has a more vertiginous, multicentric growth. In 69% of the cases the capsule of the myxoid type is incomplete, which facilitates the recurrences due to infiltration of healthy tissues by tumor cells. The greater the capsule thickness, the lower the chance of recurrence. The thickness ranges from 5  $\mu$ m in the myxoid type, to 250  $\mu$ m in the cellular type. The likelihood of tumor recurrence increases with the presence of capsular elements such as pseudopodia or nodular satellites, especially when they are not completely removed during surgery. The prevalence of incomplete capsules and nodular satellites is higher in APs exceeding 25mm, indicating that the recurrence rate increases with the increase in tumor size. The average diameter of non-recurrent APs is 30mm, and the diameter of recurrent ones is 43mm. In parotidectomy or extracapsular dissection procedures, the larger the margin of healthy tissue resected, the lower the chance of recurrence. The optimal surgical margin is determined to be 1 cm. Another frequent reason of tumor recurrence is a breach in the tumor capsule during surgery, which leads to tumor spillage over the surgical field.

AP recurrence occurs more likely if the AP type is myxoid or the capsule is thin and incomplete with elements such as satellite nodules or pseudopodia. Surgical variables influencing the recurrence are surgical margins of less than 1 cm of healthy tissue and surgical accidents such as breaches in the tumor capsule and spillage.