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## Surgical treatment giant Warthin's tumor – case report

### Chirurgiczne leczenie olbrzymiego guza Warthina – opis przypadku

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#### KEYWORDS

adenolymphoma, salivary gland neoplasm, treatment, surgery

#### SUMMARY

Warthin's tumor, also known as papillary cystadenoma lymphomatosum or adenolymphoma, is the second most common benign tumor of the parotid gland. The incidence of Warthin's tumors are observed more often in male population but in the last four decades more and more women suffered from this tumors. At that time, the male-to-female ratio is approximately 5:1. Malignant transformation is very rare in this tumor. It has been reported up 14% to 30% of parotid tumors. First time it was described in 1929 by the American pathologist Aldred Scott Warthin. The number of patients with a benign Warthin's tumor is increasing and their optimal treatment is a problem for health care. Optimal treatment of Warthin's tumor remains controversial. In this article the authors presented a case of a 75-year-old woman who was admitted to the hospital because of giant tumor located in the left parotid gland. The patient underwent partial excision of the parotid gland on the left side with the Warthin's tumor and in the first day after surgery was discharged home.

#### INTRODUCTION

Warthin's tumor, also known as papillary cystadenoma lymphomatosum or adenolymphoma, is the second most common benign tumor of the parotid gland (1). It has been reported up 14 to 30% of parotid tumors (2). First time it was described in 1929 by the American pathologist Aldred Scott Warthin (3). Doctor Warthin called this tumor papilliferous, or papillary, or cystadenomas (3).

#### CASE REPORT

A 75-year-old woman, Caucasian race, was admitted to the Department of Surgical Oncology because of giant Warthin's tumor located in the left parotid gland. In an interview with the patient, she informed us that the tumor of the left parotid gland appeared in her 10 years earlier and gradually expanded. The patient reported pain related to Warthin's tumor.

She had no any other symptoms, there was no history of weight loss and loss of appetite. The patient was treated chronically for hypertension disease and ischemic heart disease. She had two surgeries (thyroidectomy due to thyroid

nodular goiter and hysterectomy because of myomas) and there was no history of carcinoma in patient family. Blood test and other routine hematological examinations and biochemical tests were within normal limits.

On physical examination, in the left parotid gland area there was palpable 60 millimeters tumor (fig. 1). Ultrasound examination showed a pathological mass in the region of the left parotid gland, the size of tumor was approximately 55 x 58 mm. During examination there was observed solid tumor with cystic spaces. The neck lymph nodes were not enlarged during ultrasound and palpation. The patient had fine-needle biopsy without complication. The histopathology examination revealed a benign Warthin's tumor.

The patient was qualified for surgery. It was made partial excision of the parotid gland on the left side with the Warthin's tumor (fig. 2). Because of the tumor size, during the operation carefully were prepared important neurovascular structures. During a surgical procedure, there was no bleeding. It has not been damaged the facial nerve. Salivary gland tumor after resection was sent for routine histopathological examination, which confirmed



**Fig. 1.** Warthin's tumor located in the left parotid gland diameter 55 x 58 mm.



**Fig. 3.** Warthin's tumor after resection.



**Fig. 2.** The photo showing the space after resection of the left parotid gland tumor.



**Fig. 4.** The photo showing cut through Warthin's tumor.

a benign Warthin's tumor (fig. 3 and 4). The duration of surgery was 45 minutes. Patient after surgery felt good and did not complain of pain. The postoperative period was uncomplicated and the patient left the ward in the first day after operation. The patient is in the care of outpatient surgical oncology. After two months of surgery performed, there was no recurrence.

## DISCUSSION

The incidence of Warthin's tumors are observed more often in male population but in the last four decades more and more women suffered from this tumors (4). At that

time, the male-to-female ratio is approximately 5:1 (4, 5). Epidemiology of this tumor is not well known (2). Smokers have 8 times more the risk of developing these tumors than non-smokers (6). Warthin's tumors are well defined, soft tumors with an average size at diagnosis of 36 millimeters in diameter (7). The incidence of this tumor has doubled during last years due to aging population and history of smoking in population of older patients (2, 6).

Warthin's tumor can be located elsewhere, but the most commonly place is the parotid gland. On diagnostic standard, ultrasound of the parotid gland and the local lymph nodes plays important role. Dynamic MRI has high specificity (91%) and sensitivity (91%) for Warthin's tumor (8). Fine-needle aspiration (FNA) has played important role in recent years. It is well tolerated examination by patients for diagnosis salivary gland neoplasm (9).

Treatment of Warthin's tumor is still controversial. Malignant transformation of this tumor is rare and constitutes 0.3% (10). Recurrence rate after local excision Warthin's tumor is 1.8% (11). Despite this data Yoo et al. recommend superficial parotidectomy (2). Butt says that "treatment requires complete excision of the affected portion of the gland with uninvolved margins" (12).

The authors of this article recommend wide surgical resection of Warthin's tumors with uninvolved margins. Consultation with an otolaryngologist and individualization of treatment is recommended. Treatment these tumors should be done in highly specialized oncological surgery wards with experience in such operations. During

surgery it is important to save important neurovascular structures present in the tumor area (in particular regards the facial nerve).

## CONCLUSIONS

1. Warthin's tumor is the second most common benign tumor of the parotid gland.
2. Radical surgical resection is the treatment of choice.
3. Consultation with an otolaryngologist and individualization of treatment is recommended.
4. Warthin's tumors should be treated in highly specialized oncological surgery wards.

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