Introduction. Laryngeal carcinoma is the most common malignant tumor of the head and neck region. It is diagnosed in an advanced local stage in 60% of cases and in 40% of patients at this stage of the disease regional lymph nodal metastases are detected.

Aim. To carry out a retrospective epidemiological analysis of 455 cases of laryngeal carcinoma diagnosed and treated during a 10-year period from 1998 to 2007 in the Department of Otolaryngology and Oncological Laryngology at the Provincial Specialist Hospital in Olsztyn.

Materials and methods. An assessment of basic epidemiological data was conducted, including such factors as: males/females ratio, age distribution, environment, education and profession of patients, smoking habits, alcohol abuse, harmful factors at the workplace, tumors in the family, clinical symptoms, tumor site and stage, nodal stage and lymph node metastases, distant metastases and disease stage.

Discussion. The average M:F ratio was 8:1. Ages of patients ranged from 32 to 87 years. Squamous cell carcinoma was diagnosed in 99.6% of cases. The predominant localization of carcinoma was the glottis (55.8%), followed by the supraglottis (44.2%). The majority of cases (78.3%) presented a local advanced stage (T3 and T4). Regional lymph node metastases were diagnosed in 38.7% of the analyzed cases.

Long term results were evaluated on the basis of the epidemiological and clinical analysis of the chosen group of 158 patients who underwent laryngectomies between 1998 and 2002 and met the criteria of the 5-year follow-up. Complete recovery was achieved in 78.5% of patients. Treatment failed in 21.5% of cases. Distant metastases were the most frequent causes of failure (38.2%).

Conclusions. A statistically significant correlation was confirmed with respect to the presence of metastases in cervical lymph nodes and the pretreatment tracheotomy.