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Department and Chair of Conservative Dentistry, Department of Virology
Chair and Clinic of Otolaryngology and Head and Neck Oncology, Medical University of Lublin
Ward of Laryngology, Head and Neck Surgery
Cardinal Stefan Wyszyński Voivodship Specialist Hospital in Lublin

MAŁGORZATA STRYCHARZ, MAŁGORZATA POLZ-DACEWICZ,
WIESŁAW GOŁĄBEK, MACIEJ ŚWIETLICKI, KRZYSZTOF KUPISZ

The epidemiologic analysis of 254 oral cancer cases from the Lublin region

In recent years more than two thousand new oral cancer cases and more than one thousand deaths caused by this disease have been registered annually in Poland (1). Although the oral cavity seems to be relatively accessible to medical examination, the majority of patients with oral cancer are diagnosed at a considerably advanced stage. The prognosis in patients with malignant tumours in the oral cavity is not favourable as well, as just under 40% of patients survive more than 5 years (6, 8). On this account, attempts are being made to find the relationship between different factors which may increase the risk of developing lesions in this area. The aim of this study was an epidemiologic analysis of a group of 254 patients with oral cancer.

MATERIAL AND METHODS

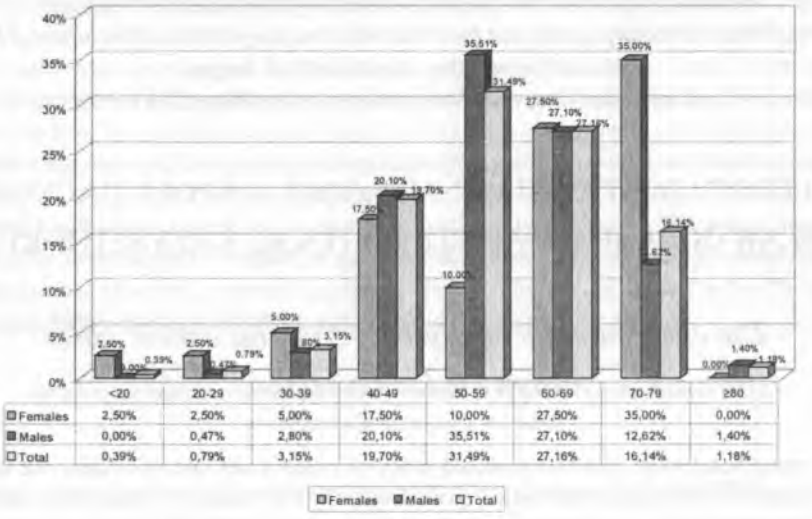
The study involved 254 patients with histopathologically confirmed primary cancer of the oral cavity. Their age was between 18 and 89 (the average was 57.53). The data obtained from the hospital records came from the period 1992–2004.

The examined patients were treated in Chair and Clinic of Otolaryngology and Head and Neck Oncology of the Medical University in Lublin and from the Ward of Laryngology, Head and Neck Surgery of the Cardinal Stefan Wyszyński Voivodship Specialist Hospital in Lublin. The socio-demographic data such as age, sex, place of residence were compiled. Additionally, data connected with the disease such as the site of the lesion, the ailments and their duration, histopathological diagnosis were also collected. All the data were put into a special form created for this purpose.

RESULTS

In the examined group of patients with oral cancer there were 214 men (84.25%) and 40 women (15.75%). The largest group were cases of people in their fifties (31.49%) and sixties (27.16%). Men were generally in their fifties (35.51%) and sixties (27.10%) while women were most often in their seventies (35.00%) – Figure 1. Because oral cancer occurs very seldom in people below 45 years of

age, we divided the examined group into three age brackets: below 45 years of age, between 45 and 60 years of age and above 60 years of age. The majority of patients (44.49%) were in the 45–60-year-old age group. In the oldest age group (>60 years of age) there were 42.52% of the examined persons. In this relation statistically significant differences were observed ($p<0.001$).



	<20	20-29	30-39	40-49	50-59	60-69	70-79	≥80
Females	2,50%	2,50%	5,00%	17,50%	10,00%	27,50%	35,00%	0,00%
Males	0,00%	0,47%	2,80%	20,10%	35,51%	27,10%	12,62%	1,40%
Total	0,39%	0,79%	3,15%	19,70%	31,49%	27,16%	16,14%	1,18%

Fig. 1. The occurrence of oral cancer in relation to age and sex ($p<0.001$)

Most patients came from the rural area (37.55%), but nearly the same percentage of cases (35.57%) were inhabitants of a city (Fig. 2).

In the great majority of patients (93.31%), epithelial tumours were observed. Most cases (87.80%) were diagnosed as oral squamous cell carcinoma. Other diagnosed neoplasms were lymphoma (5.90%), tumours originating in glandular epithelium (5.51%), Hodgkin's disease (*Lymphogranulomatosis maligna*) and *haemangioendotheliosarcoma* (0.79%) (Fig. 3). In 42.52% of patients, lesions were located on the tongue, while in 15,75% – within the floor of the mouth (Fig. 4). There were also many cases of extensive tumours (15.36%), which occupied more than one site in the oral cavity – in 5.51% of people they were located within the tongue and the floor of the mouth and in 9.85% of patients they were situated in more than two structures of the oral cavity. The least common were the lesions observed on the hard palate (0.79%).

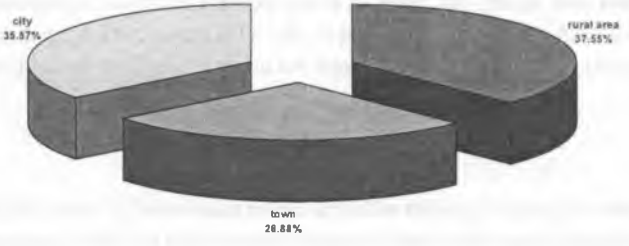


Fig. 2. The occurrence of oral cancer in relation to a place of residence

The lesions on the tongue were most often located on its oral part (50.92%), less frequently on its base (37.04%) and in 12.04% cases they covered the whole tongue. The patients most often complained of ailments experienced while eating and swallowing (48.80%) and of the pain in the changed area (46.85%). The lack of subjective complaints but only the presence of the lesion stated by the dentist, general practitioner or the patients themselves was noted in 20.87% of the cases. The patients saw the doctor usually 2–3 or 4–6 months after the first ailments occurred.

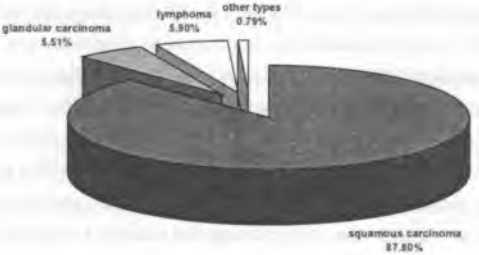


Fig. 3. Histological types of cancer in the examined group

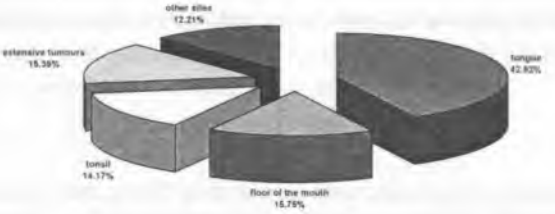


Fig. 4. The location of the tumours in the examined group of patients

DISCUSSION

According to the National Cancer Register, the number of oral cancer cases in Poland was increasing until the beginning of the 1990s. For about 10 years the situation has been stable in this field but there has occurred a significant change in the structure of the lesions site. A constant decrease of the lip cancer cases is observed – from 77% in the 1960s to 25–40% at the turn of the 20th century, while there is still an increase in the number of patients with tongue cancer (from 10% to 18–19%) and with cancer located in other sites in the oral cavity (from 5% to 11%) (1, 9).

According to the world cancer reports, oral cancer occurs 2–15 times more often in men than in women, depending on the geographical region the examined population came from and the site of the lesion (14). Research carried out in Poland showed that there are four times more men than women with oral cancer (1, 5, 15). The findings of our study seem to reflect this tendency because in the examined group there were 85% men.

In the literature there are studies showing that oral cancer is less frequent in people younger than 45 years of age (1, 5, 15). In our study, most cases were people in their fifties and sixties. Taking into account our division into three age groups, almost half of the cases (45%) were people from the 45–60-year-old age group. The lesions were least frequently stated in patients younger than 45 years of age (13%). Oral cancer in people below this age consists, according to different sources 0.24–9%, of all cancer cases in this location (2). Nowadays, it is observed that the lower limit of the age decreases,

which induces a very detailed analysis of the reasons for the development of oral cancer in young people. It is even suggested that oral cancer in this age group is a disease of a different etiology and progression than in older patients (2, 11, 12).

The oral cavity may be the place of the development of all types of cancer – benign and malignant, primary and metastatic. National and world cancer registers showed, however, that the most frequently found malignant neoplasm in the oral cavity is oral squamous cell carcinoma (oscc, *carcinoma planoepitheliale*), observed in about 80–95% cases, which depends on geographical, ethnic and socio-economic conditions (3, 9, 10, 13, 14). Our findings are in accordance with these data as we noted almost 88% cases diagnosed as *carcinoma planoepitheliale*.

Taking into account cancer prophylaxis, it is very important to diagnose the symptoms as early as possible. Prognosis in oral cancer is not favourable. In the United States, despite significant therapeutical development, the five-year survival still remains within 50%. The researches carried out in Poland by Juszczyk-Popowska et al. (6, 8) showed that only 30–35% of patients survive more than 5 years after being diagnosed. It is largely due to the fact that patients see the doctor too late. Oral cancer often develops in a latent way, not causing the patient's anxiety. The enlargment of the lesion dimensions and the intensification of the ailments reflects a considerably advanced stage of the disease. In our study, the most frequently reported ailments were difficulties while eating and the pain in the changed area. But similarly to other researchers, we noted that only 20% of the cases saw the doctor because of noticing the lesion in the oral cavity without experiencing any subjective ailments (4, 7, 8).

CONCLUSIONS

1. The great majority of patients were men in their fifties and sixties.
2. The lesions were most frequently located on the tongue.
3. Most cases were diagnosed as oral squamous cell carcinoma.
4. The patients most frequently complained of ailments experienced while eating and swallowing and of the pain in the changed area.
5. The cases usually saw the doctor after 2–3 or 4–6 months after noticing the first symptoms of the disease.

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SUMMARY

The aim of the study was an epidemiologic analysis of patients with oral cancer. The study involved 254 cases (214 men and 40 women) living in the Lublin region. They were generally in their fifties and sixties. The lesions were generally located on the tongue. 88% of the cases were diagnosed as oral squamous cell carcinoma (oscc).

Analiza epidemiologiczna zachorowań na nowotwory złośliwe jamy ustnej w grupie 254 pacjentów z regionu lubelskiego

Celem pracy była analiza epidemiologiczna zachorowań na nowotwory złośliwe jamy ustnej w grupie 254 pacjentów. Badaniem objęto 214 mężczyzn i 40 kobiet mieszkających w regionie lubelskim. Największą grupę stanowili pacjenci w wieku 50–60 lat. Zmiany najczęściej zlokalizowane były w obrębie języka. W 88% przypadków nowotworów rozpoznano raka płaskonabłonkowego jamy ustnej (*carcinoma planoepitheliale*).