

Higher values of 5-year survival as an advantage resulting from starting treatment in the oncological center, including data from the cancer registry and clinical database for the Lower Silesia Voivodeship, Poland.

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INTRODUCTION

In 2015, the Province of Lower Silesia, Poland had 2.900,000 inhabitants and 13,093 new cancer cases were registered.

Lower Silesia is located in the south-west of Poland sharing a common border with Germany and the Czech Republic.



MATERIAL & METHOD

The 5-year relative survival of patients diagnosed with breast, ovarian, rectal cancer and malignant melanoma during three periods of 2000-2004, 2005-2009 and 2010-2012, were calculated based on data from the cancer registry and clinical database for the Lower Silesia Voivodeship. Stage distribution was also analysed.

Data of death comes from the Central Statistical Office, information on deaths has been supplemented from the Ministry of Digitization.

To calculate the relative survival, our own calculation sheet was used. It was based on the classical Hakulinen's method which is based on the calculation of theoretical survival values taking into account the age of the patients which also include connection with values of life expectancy.

We included in the analysis 6840 breast cancers patients who had surgery in 2010-2012, of which 3297 (48,2%) underwent surgery in Lower Silesian Oncology Center (LSOC); 2560 rectal cancers – 1139 (44,5%) operated in LSOC; 1069 malignant melanomas – 577 (54%) who received surgical treatment in LSOC and 1331 ovarian cancer - 762 (53,7%) had primary surgery in LSOC.

DEPARTMENT OF ONCOLOGIC SURGERY



Department of Oncologic Surgery in LSOC offers comprehensive treatment of gastrointestinal, endocrine and soft tissue tumors and facilities to perform minimally invasive procedures: Transanal Total Mesorectal Excision, laparoscopy, Transanal Endoscopic Microsurgery, Resection of a Giant Rectal Polyp with Closure of the Peritoneal Defect. It also had a high volume center for colorectal surgeries.

New technologies such as hyperthermic intraperitoneal chemotherapy (HIPEC) and cytoreductive (debulking) surgery are available for the treatment of advanced gastrointestinal and gynecological malignancies.

RESULTS

Differences in the presented values of 5-year survival rates were analyzed statistically. For women with **breast cancer** during the study period it was 83-87% (average 85%) and 69-87% (average 82%) for treated in LSOC and outside LSOC respectively, which is not statistically significant (NS). However cases reported to the registry for LSO's have more advanced stages.

For patients with **rectal cancers** despite the similar stage in the analyzed period, 5-year survival rates were at LSOC 58-64% (average 61%), 36-59 (average 48%) for treated outside LSO respectively which is statistically significant ($p=0,03$).

For patients with malignant **melanomas** 5-year survival rates were: 56-73% - (67% on average) and 34-66% (average 58%) for treated in LSOC and outside LSOC respectively, ($p=0,0381$).

In 2011 the difference of 10% in favor of those operated outside the LSOC was due to differences in stage distribution: stage IV was diagnosed in 45,5% in LSOC and 27,8% outside.

In 2012 when stage distribution was similar level (stage IV: 31,6% in LSO and 33,3% outside LSOC), in patients operated in LSOC the absolute difference in 5-yr survival was 7,6%.

5-yr survival for **ovarian cancer** patients were not statistically different with 43-53% (average 48%) and 30-53% (average 44%) for treated in LSOC and outside LSOC respectively.

CONCLUSIONS

The study showed that treatment in a high – volume, specialized oncology center such as LSO improves prognosis especially in rectal cancer and malignant melanoma, which can be explained by an access to high-quality medical care.

Due to the high mortality rates in cancer patients in Poland, The Ministry of Health developed the concept of the National Oncology Network. Oncology hospitals from 4 provinces (including Lower Silesia) will carry out a pilot program of the National Oncology Network (KSO). The voivodeship coordinating center would be responsible for supervising the treatment of a cancer patient. It will control the patient's treatment - from the moment of suspected diagnosis to the end of treatment and further rehabilitation. The aim of the KSO is to coordinate oncological care in the region, cooperate with other centers and monitor treatment results.



The key issue of Polish Cancer Plan is to centralize highly specialized procedures (such as oncological surgery) and decentralize other treatment modalities such as radiotherapy and systemic therapy. As in multiple malignancies primary surgery may be crucial for patient prognosis it should be performed in a specialized center, and systemic therapy, radiotherapy and rehabilitation may be provided by smaller centres, located closer to patients residence.

The planned changes should provide rapid and precise diagnosis, increase detection of malignancies at early stage, multidisciplinary approach to therapy and introduction of uniform standards.

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