EPH100

Pharmacological Oncological Treatment of Breast Cancer in the Slovak Republic in 2023: Results of the Nationwide Epidemiological Study Medi-LINE®

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INTRODUCTION

In Slovakia, the most up-to-date epidemiological data on cancer incidence are available for 2014[1]. Descriptive hard data and data on treatment management are not available.

The ASR-W incidence of breast cancer (BC) in females increased statistically significantly between 1978-2012. There was a decrease in 2013 and 2014, but this was due to incomplete reporting.

For 2022, IARC WHO estimated the ASR-W **incidence** in SR at 67.3/100,000, which ranks **SR 22nd in the EU[2].**

Due to the absence of country-specific data, this incidence is derived from national mortality estimates by modelling, using mortality:incidence ratios derived from cancer registry data in neighboring countries[2].

BC-related ASR-W mortality in females (published by the Statistical Office of SR[3]) decreased statistically significantly between 2015 - 2023. Since the decrease started before the introduction of population screening, it is attributed to better treatment rather than to the screening effect.

According to IARC WHO **mortality** estimates, **SR was ranked 2nd in the EU[2].**

Data on the management of BC patients in the Slovak Republic are not available and not published in any form.

OBJECTIVE

The aim of the study was a **comprehensive analysis of pharmacological oncological treatment of patients with BC in the Slovak Republic**.

METHOD

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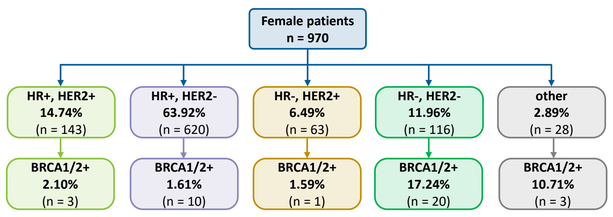
- Cross-sectional epidemiological study based on the analysis of data from medical records of treated BC patients in the SR
- Inclusion criteria:
  - A definitive diagnosis of primary BC
  - Pharmacological treatment at the time of completing the protocol
- Collected parameters:
  - Disease history (simultaneous multifocal/multicentric tumor, year of diagnosis, histological type, clinical stage, hormone receptor status, HER2, PD-L1, BRCA1/2 status)
  - Current type of treatment (neoadjuvant, adjuvant, palliation)
  - All other treatments for BC in the past

RESULTS

980 analysed patients – a representative cohort considering the prevalence in Slovak population.

Patients		Females	Males
n=980 (100%)		n=970 (98.98%)	n=10 (1.02%)
Histological type	- Ductal carcinoma	83.71%	100.00%
	- Lobular carcinoma	13.30%	0.00%
	- Other	4.33%	0.00%
Simultaneous multifocal/multicentric tumor		12.06%	0.00%
A positive history of previous BC		3.20%	0.00%
A positive history of another type of cancer		3.30%	20.00%

Basic characteristics of the population.

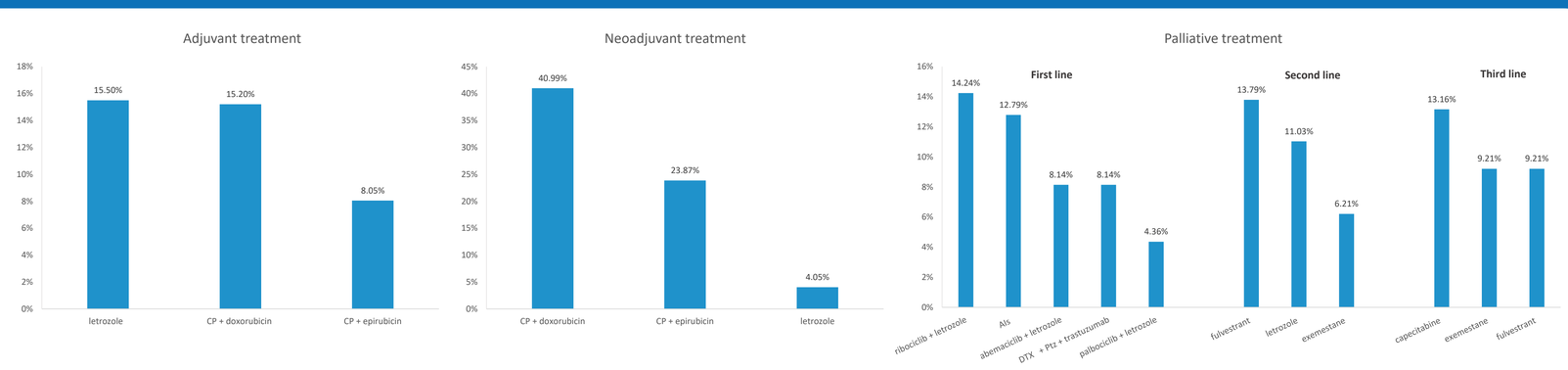


*Distribution of female patients according to HR/HER2 and BRCA1/2 status. *Patients with unknow or unrepresentative results of HER2 or HR examinations.*

HER2 negative were 78.35 % of female patients, ER+, PR+ were 71.96 % of female patients. Tripple negative (HR-/HER2-) were 11.96 % of the female patients.

There were 25.36 % BRCA1/2 screened female patients, 15.04 % of them were positive.

2.99% of female patients were tested for PD-L1, 17.24% of them were positive.



At the time of the study, most of the female patients captured in the cross-sectional study were receiving **adjuvant therapy (55.05 %)** and were treated with **82 different treatment regimens** containing **21 different active substances**.

Regardless of HR/HER2 status, the most common adjuvant treatment regimen was letrozole monotherapy, followed by cyclophosphamide (CP) + doxorubicin and CP + epirubicin.

Neoadjuvant treatment were receiving **8.56 %** of the female patients. Regardless of HR/HER2 status, the most common **neoadjuvant treatment** regimens were CP + doxorubicin, CP + epirubicin and letrozole monotherapy.

The second most common treatment type in female patients at the time of the study **was palliative treatment (35.36 %)**, as these patients are treated more frequently and are therefore more often captured in the cross section. In palliative treatment, **68 different treatment regimens** containing **33 different active substances** were captured.

Regardless of HR/HER2 status, the most common first-line palliative treatment regimen was ribociclib + letrozole, followed by aromatase inhibitor (AIs) monotherapy (letrozole or anastrozole), abemaciclib + letrozole, docetaxel (DTX) + pertuzumab (Ptz) + trastuzumab and palbociclib + letrozole.

In the second line, the most common regimen was fulvestrant monotherapy, followed by letrozole monotherapy and exemestane monotherapy.

In the third line, the most common regimen was capecitabine monotherapy, followed by exemestane monotherapy and fulvestrant monotherapy .

Regardless of HR/HER2 status, **50.00 %** of the **male** patients (n=5), were on **adjuvant** and **50.00 %** (n=5) on **palliative treatment**.

CONCLUSIONS

The Medi-LINE® study represents a unique source of data from the real clinical practice in the Slovak Republic. In addition to information on oncological treatment, it provides also detailed information on immunohistochemical and genetic examination results, and many other data from a representative sample of patients.

The results might be used to identify management of the disease in health economic analyses in the Slovak setting.

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