4. HPV vaccination introduction worldwide and WHO and UNICEF estimates of national HPV immunization coverage 2010-2019 / L. Bruni, A. Saura-Lázaro, A. Montoliu [et al.] // Preventive Medicine. – 2021. – Vol. 144. – P. 106399.

5. Derivation and validation of a risk-factor model for detection of oral potentially malignant disorders in populations with high prevalence / H. Amarasinghe, N. W. Johnson, R. Lalloo [et al.] // British Journal of Cancer. – 2010. – Vol. 103, № 3. – P. 303–309.

УДК 61.19+618.146+616.34+616.24]-006.6-07(548.7)

P. Kumaresan, S. Madhushalini, V. S. Volchek

Scientific supervisor: Ph.D., Associate Professor, Doctor of Medical Sciences V. N. Belyakovskii.

Educational Establishment
"Gomel State Medical University"
Gomel, Republic of Belarus

EXPLORING THE EPIDEMIOLOGICAL PATTERNS OF BREAST, CERVICAL, COLORECTAL AND LUNG CANCER AND THE EFFECTIVENESS OF SCREENING PROGRAMMES IN SRI LANKA

Introduction

Cancer is a leading cause of morbidity and mortality worldwide, with a rising burden in low – and middle-income countries. In Sri Lanka, cancer has become a major public health issue, with steadily increasing incidence over the past decade due to population ageing, demographic transition, lifestyle changes, and improved diagnostics [1]. Estimates from the International Agency for Research on Cancer through GLOBOCAN 2020/2021 confirm that breast, cervical, colorectal, and lung cancers are among the leading contributors to the national cancer burden [2].Breast cancer is the most common female malignancy and a leading cause of cancer deaths, linked to delayed childbearing, reduced breastfeeding, obesity, sedentary lifestyle, and improved detection [1, 2]. Cervical cancer remains preventable through vaccination and Pap smear screening, yet coverage and follow-up gaps limit early detection [3]. Colorectal cancer incidence is rising due to urbanization, dietary changes, and ageing, with mainly opportunistic screening [1, 2]. Lung cancer, strongly associated with tobacco use and environmental exposures, is a leading cause of male cancer mortality due to persistent smoking and late-stage diagnosis [2].

Screening programmes are vital in reducing mortality through early detection. Evidence from the World Health Organization highlights the effectiveness of organized breast and cervical cancer screening [3]. In Sri Lanka, well-woman clinics and awareness programmes have improved detection, though regional disparities remain.

Goal

The objectives of this study are to review national and global cancer data related to Sri Lanka, to assess trends in cancer incidence and mortality, to evaluate the role and effectiveness of cancer screening programmes, and to highlight the burden of female cancers in Sri Lanka in order to support evidence-based cancer control strategies.

Material and methods of research

A retrospective descriptive study was conducted in Sri Lanka using secondary data from government oncology units, national cancer registries, and the National Cancer Control Programme. Data on cancer-related deaths, were collected from hospital records and Ministry of Health report. Screening data for breast and cervical cancers were obtained from well-woman clinics and Pap smear registries. Variables analyzed included age, sex, cancer type, stage at diagnosis, incidence, and mortality. Data were analyzed using descriptive statistics and presented as frequencies, percentages, and graphs to assess epidemiological patterns and screening effectiveness.

The results of the research and their discussion

The overall cancer incidence in Sri Lanka shows a rising trend over the past decade [4]. Cancer incidence showed a steady increase during the study period, rising from 23,500 cases in 2017 to 28,600 cases in 2021. The intermediate values were 24,800 cases in 2018, 26,100 in 2019, and 27,300 in 2020, indicating a continuous upward trend in cancer detection and reporting. Cancer mortality has also increased from 14,000 deaths in 2017 to 16,100 deaths in 2021. The number of deaths rose from 14,500 in 2018 to 15,000 in 2019 and 15,600 in 2020, though at a comparatively slower rate, indicating improvements in treatment access and early detection (Figure 1).

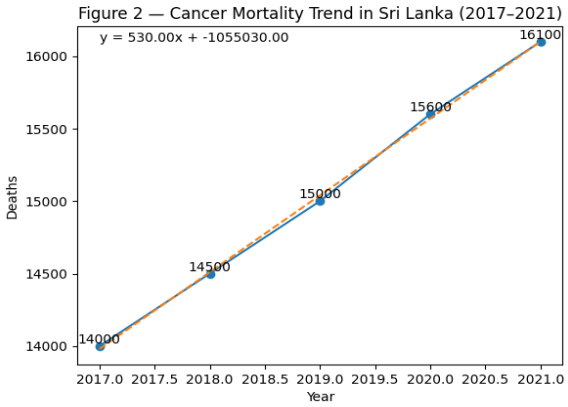


Figure 1 – Trend in cancer mortality in Sri Lanka (2017-2021)

Among the most common cancers in Sri Lanka, breast cancer remains the leading cancer among women, 4,200 cases in 2017 to 5,050 cases in 2021. The number of cases rose gradually through 4,400 cases in 2018, 4,600 in 2019, and 4,800 in 2020, while oral cancer is highly prevalent among males. Lung and colorectal cancers also contribute significantly to morbidity (Figure 2).

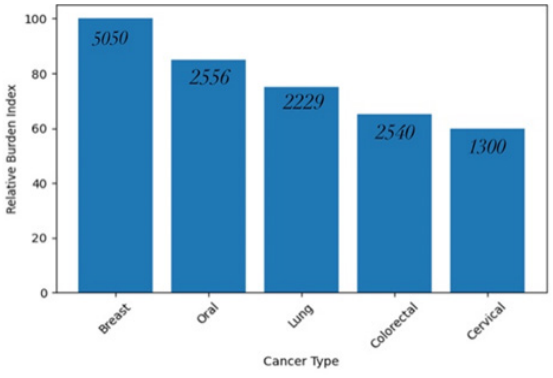


Figure 2 – Common cancers in Sri Lanka

Cervical cancer screening programmes, including Pap smear services implemented through public health services, have contributed to a gradual decline in mortality where screening coverage is adequate (Figure 3) [5].

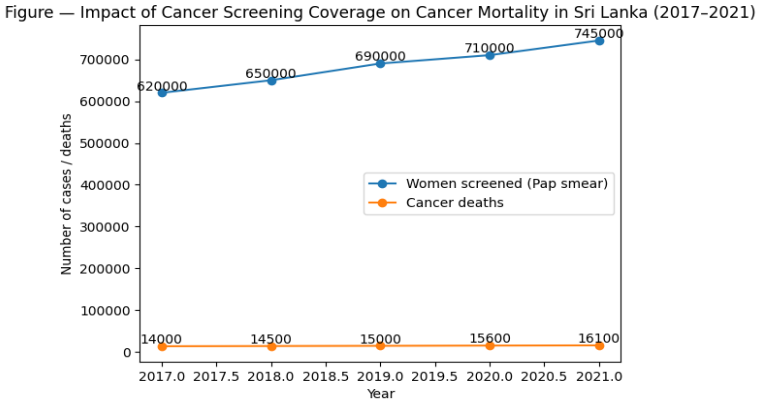


Figure 3 – Impact of cancer screening on Mortality in Sri Lanka

Conclusions

The study demonstrates an increasing trend in cancer incidence and mortality in Sri Lanka, indicating a growing public health burden. Breast, lung, colorectal, and cervical cancers remain major contributors to cancer morbidity and mortality. The expansion of screening programmes has improved early detection; however, long-term improvements in mortality require sustained screening coverage, early diagnosis, and effective treatment strategies.

LITERATURE

1. Cancer incidence & mortality data – Sri Lanka 2021 / National Cancer Control Programme Sri Lanka. – Colombo: Ministry of Health Sri Lanka, 2021.

2. Sri Lanka fact sheet – GLOBOCAN 2020 / International Agency for Research on Cancer. – Lyon: World Health Organization, 2020.

3. Cervical cancer country profile: Sri Lanka 2021 / World Health Organization. – Geneva: WHO, 2021.

4. Weekly epidemiological reports / Epidemiology Unit Sri Lanka. – Colombo: Ministry of Health Sri Lanka, 2021.

5. Rising inpatient burden of female breast cancer in Sri Lanka: a population-based analysis of hospital admissions and deaths (2017–2022) // ResearchGate. – 2023. – P. 1–10.

УДК 614.2:616-006.04-036.22-084(55)»2015/2025»

M. G. Mahdavi, A. S. Mohamed, V. S. Volchek

Scientific supervisor: prof. V. N. Belyakovsky

Educational Establishment
"Gomel State Medical University'
Gomel, Republic of Belarus

TRENDS AND PUBLIC HEALTH IMPACT OF CANCER SCREENING IN IRAN (2015–2025)

Introduction

Cancer represents one of the most significant public health challenges worldwide and is currently the second leading cause of death globally. According to estimates from the Global Cancer Observatory (GLOBOCAN), approximately 19.3 million new cancer cases and nearly 10 million cancer-related deaths occurred worldwide in 2020 [1]. The global cancer burden is expected to increase substantially, with projections indicating more than 28 million new cases annually by 2040, mainly due to population ageing, demographic expansion, and increasing exposure to lifestyle-related risk factors [2].