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POSTER

Discriminatory analysis in determination of high risk of gastric cancer

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Background: Determination of the high risk of gastric cancer and target examination of patients from high-risk groups makes early detection of gastric cancer possible and contributes to the decrease of mortality rates as the outcome of gastric cancer treatment is primarily dependant on the stage of disease.

Patients and Methods: 700 patients with gastric cancer and 1069 persons without any oncopathology referred to Altay oncological center for consultation in 2002–2004 were interviewed and examined to get the data on different factors known as risk factors for gastric cancer (endogenous, environmental, lifestyle, nutritive factors, results of blood-tests and non-oncological stomach diseases, etc.).

Results: By means of discriminatory analysis from 131 investigated factors there were 26 factors distinguished and corresponding coefficients of canonical function of discrimination calculated, on the basis of which the prognosis of gastric cancer development may be ascertained ($p < 0.001$): age, body mass, education, duration of stress, insomnia, extra sleep during daylight hours, family history of gastric cancer, family history of cancer, presence of clinical symptoms, lifetime history of smoking, usage of strong spirits, amount of spirits used per month, regularity of nutrition (eating patterns), time intervals between food intakes, variety of food allowance, usage of food and drinks of high temperature, animal fats, spicy food, canned and preserved food, bakery, strong black tea and coffee, fresh vegetables and fruit, sour milk products, green tea, level of haemoglobin, ESR. Multiplying the interval values of those significant factors and corresponding coefficients of canonical function of discrimination and subsequent summarizing of the results and the constant gives an «integral rate», the positive value of which is the evidence of high risk of gastric cancer either to be developed or already exists. Negative integral rate is the evidence of low risk. Cross check up showed the 95.1% test-sensitivity and 95.0% test-specificity.

Conclusion: Thus, the value of the integral rate can be used as a criterion for selection of concrete patients with high risk of gastric cancer to be deeply examined and to be under monitoring for detection of early gastric cancer.

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The comparative analysis of epidemiological situation of cervical cancer in Poland and Wielkopolska region, after the commencement of national screening programme of cervical cancer

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Background: The incidence of cervical cancer in Poland is one of the highest compare to other European countries. The incidence rate of this cancer has been changing within last 20 years mostly due to changes in population structure, which differs depending on the region, probably because of the history impact. 5-year survival rate analysis shows the low number of recoveries after cervical cancer.

Aim: The comparative analysis of cervical cancer incidence and mortality rate in Poland and Wielkopolska region during last 20 year.

Materials and Methods: Incidence and mortality data obtained from the National Cancer Registry, Central Statistical Office and Wielkopolskie Oncology Center from year 1985 to 2004 were analyzed.

Results: Between year 1985 and 2004 the number of cervical cancer cases decreased from 3843 to 3439, when the number of population increased by 3.4%. Standardized rate reduced from 16.8 to 12.3. During analyzed period the number of deaths decreased from 2028 to 1819. Mortality standardized rate went down from 8.9 to 5.9. Currently cervical cancer occupies 5th place among women, according to its frequency occurrence (structure rate – 6%) and 7th place among the most frequent causes of death (structure rate – 6%). Cervical cancer incidence in Poland was diverse: from 10/100 000 in Lubelskie region, to 16/100 000 in Zachodniopomorskie region (standardized rates for year 2004). Similar diversity was observed for mortality rate: from 5/100 000 in Podkarpackie region and Swietokrzyskie, to 9/100 000 in Zachodniopomorskie region (standardized rates for year 2004).

In Wielkopolska region from 1985 to 2004 the number of cervical cancer cases decreased from 335 to 246. Standardized rates also decreased (from 17.5 to 10.2). Although cervical cancer incidence in Wielkopolska region balanced below average for Poland, registered number of deaths increased from 109 to 153 between 1985 and 2004. Progressive however slight growth of mortality standardized rates during analyzed period led to the conclusion that women visit the physician too late.

Conclusions: Despite the reduction of incidence and mortality rate values of cervical cancer for Poland they still differ from comparable European countries. Although the situation in Wielkopolska region points at the decrease in incidence of cervical cancer, the mortality standardized rates stay unchanged (the growth in absolute numbers by 44 deaths), which needs to be further analyzed in detail. Only sufficient and active population screening program together with vaccination program in a big way, may change the position of Poland among other European countries and move it away from those with highest cervical cancer mortality and incidence rates.

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High incidence of renal insufficiency in ovarian cancer patients

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Background: With the improvement of overall survival for cancer patients and the increasing number of elderly patients, nephrotoxicity became a major point for medical oncologists, for every patient, and especially those treated with antimitotics or other nephrotoxic drugs. The IRMA study reported the high prevalence of renal insufficiency (RI) in 4684 cancer patients, with a glomerular filtration rate (GFR) <90 ml/min for near 60%. Furthermore, 80% were receiving nephrotoxic drugs and 79% drugs necessitating dosage adjustment. We present the results for IRMA patients with ovarian cancer.

Methods: Data were collected for cancer patients presenting at one of the 15 IRMA centers: type of tumour, sex, age, weight, serum creatinine (SCR), haemoglobinemia (Hb) and anticancer drugs. Patients with ovarian cancer underwent subgroup analysis (no dialysis, no myeloma). The prevalence of SCR > 110 µmol/L was assessed. GFR was estimated with the Cockcroft-Gault (CG) and the abbreviated MDRD (aMDRD) formulae. Patients were classified according to their GFR (Table). Among anticancer drugs prescribed, those necessitating dosage adjustment and those potentially nephrotoxic were identified.

Results: 270 patients were included: mean age 62.5 years (range: 18–86), weight 62.5 kg (range: 35–122). The prevalence of SCR > 110 µmol/L was 4.8%. That of GFR < 90 mL/min (or mL/min/1.73 m²) was 75.2% with CG and 65.6% with aMDRD. Among patients with normal SCR, 78% and 66% had abnormal CG and aMDRD, respectively. 50% of the 402 prescriptions were drugs needing dosage adjustment (or no data) and 78% of treated patients received at least one such drug. 92% of all prescriptions were potentially nephrotoxic and 97% of treated patients received at least one nephrotoxic drug. Hb was lower than 12 and 11 g/dl in 62.6% and 33.3% of the patients, respectively.

Conclusions: RI is highly frequent in ovarian cancer patients and SCR dramatically underestimates this prevalence. Appropriate evaluation of renal function necessitates CG or aMDRD calculation. Nearly all those patients were treated with drugs that may necessitate dosage adjustment and were receiving potentially nephrotoxic anticancer drugs. Furthermore, anemia was highly frequent.

RI stages in IRMA ovarian cancer patients:

GFR (mL/min or mL/min/1.73 m ²)	CG	aMDRD
≥90	19.26%	29.63%
60–89	41.48%	45.56%
30–59	33.33%	19.63%
<30	0.37%	0.37%
Data not available	5.56%	4.81%

RI: Renal Insufficiency; GFR: Glomerular Filtration Rate; CG: Cockcroft-Gault, aMDRD: abbreviated MDRD.