A number of studies reported that intraabdominal fat accumulation increases the risk of postmenopausal breast cancer independently of body weight, and particularly when there is a family history of the disease. The study was carried out in a group of 60 premenopausal women of which 30 patients were with breast cancer (BC group) and other 30 were with benign breast tumor (control group). Apart from standard measurement [weight, height, waist and body mass index (BMI)] we also measured fat mass by using bio-electric impedance analysis. The data were processed significantly higher weight, BMI and waist circumference in BC group compared to the control group. In the BC group 55.17% of the patients had the waist circumference higher than 88 cm, while in the controls it was 6.89%, suggesting that there is a higher risk of morbidity in women with higher mass of visceral adipose tissue. In the BC group there was a higher percentage of preobesity and obesity. High percentage of normal body weight (80%) was verified in the control group, but a much higher percentage of "obesity in the normal weight" was verified in the BC group ( 80% vs. 12.5%). The results clearly show that obesity and fat mass are the risk factors for breast cancer.

Malignant schwannoma is a rare type of tumor that can appear anywhere in the body. We described a case of a 49-year old female patient who came for a medical checkup because of the exulcerated and severely bleeding tumor on her right breast. The tumor was spread over the whole breast, pulled in the nipple and reached to the collarbone and into the armpit. Signs of a breast tumor were obvious she was operated as an emergency case without previous staging. Histopathological diagnosis: Malignant peripheral nerve sheath tumor - malignant schwannoma. Material that was sent for a histopathological analysis contained also eight axillary lymph nodes. All lymph nodes were inflamed, without any other morphologic changes. Metastasis of the main illness was not verified after the postoperational staging. Upon physicians' consultation it was decided that an oncologist should treat the patient. After 5-month treatment the patient has no sign of a metastasis, she works again and does not have any discomforts.
The present investigation was designed to examine the effect of bilateral lesions of the caudate nuclei, the effects of a psychotonic drug Piracetam and cyclophosphamide, on survival and incidence of metastases in tumor-bearing rats. We used 102 Wistar rats. The tumors were induced by 3-methylcholanthrene. After surgical extirpation of the tumors, animals were treated with bilateral lesions of the caudate nuclei, the psychoactive drug piracetam, cyclophosphamide or nothing. Autopsy and histological examinations were performed in all animals. Rats with bilateral lesions of the caudate nuclei (12.5%) survived over 120 days vs. 81.2% from the piracetam group, 68.8% from the cyclophosphamide group and 50% of the control group. All animals with bilateral lesions of the caudate nuclei had metastases, whereas in the piracetam group no animals had metastases. In the cyclophosphamide group 45.4% of the animals was without metastases and in control group 27.3% of the animals was without metastases. The mechanism of the antineoplastic effect monoamine stimulator, included the interaction of influences both on the metabolism of the CNS and of tumor. Most probably, the neurotransmitter modulation exerted an influence on cancerogenesis not only by regulation/deregulation of brain homeostasis, but also via a direct effect on intracelular processes during cell development and differentiation. Our results indicate that increased monoamine level in the brain supports adaptive homeostatic mechanisms, which are among other responsible for the suppression of cancerogenesis.
The aim of our investigation was to find optimal therapy that would offer the best measurable results. Eighty-six patients with advanced cervical cancer (Ca PVU) were treated with intracavitary and transcutaneous radiation (B1, n=38), or with radiotherapy plus chemotherapy (CDDP-potentential) (B2, n=46). Most patients were in stage III of the disease. At the admission, the patients were between 50 and 59 years old. Squamous cell carcinoma was most often histological diagnosis. Preparation of patients for radiotherapy and planning were conducted according to the optimal European and world standards. In this stage of the researching we could evaluate only postirradiation sequellae (French-Italian classification). It is not possible to give valuable data about patients' survival, local relapse or metastatic disease after three months only. Results did not show any enhancement in toxicity of combined treatment and irradiation treatment alone.

**KEYWORDS:** Cervix Neoplasms; Radiotherapy

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**Cervical cancer (IIB-IVA): Radiotherapy vs. radiotherapy + chemotherapy**

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This is a case of 66-year old woman that started treatment on August 1996 because of the tumor in the upper lateral quadrant of the left breast. First biopsy of the tumor did not reveal the malignant process. Two months later, on the first check-up clinical exam showed two tumors in the left breast - one beneath the biopsy scar with maximal diameter of 4 cm and the other in the lower medial quadrant of maximal dimension of 2 cm. Enlarged lymph nodes in the left axillar region were also clinically evident. Needle biopsy of both tumors and axillar lymph nodes was done and all samples were cytologically positive on malignant cells. After somewhat prolonged preoperative period, because of concomitant severe chronically obstructive pulmonary disease, tumorectomy from left breast was done. Pathology diagnose was grade 2 pleomorphic liposarcoma. After that regular check-ups were recommended. Because of the skin thickening, which was noticed six months later, biopsy of the skin was done and infiltrating lobular carcinoma of the breast was confirmed on pathological examination. Comparison of the two tissue samples was done and two pathological diagnoses were confirmed again. Further treatment was continued with radical irradiation of the left breast and regional lymphatic region after which partial regression of the left breast tumor and complete clinical disappearance of the enlarged left axillar lymph nodes were achieved. After that she started taking tamoxifen in a daily dose of 20 mg. She was in a good medical condition for 34 months without any sign of progressive disease. First metastases occurred in bones and were manifested with osteolytic changes in the skull and left femur. Because of vaginal bleeding all possible gynecological exams were done and no endometrial carcinoma was confirmed although uterine curettage was not done because of significant deterioration of her health condition. She was treated with symptomatic therapy and died after a month, 45 months after she was referred to our dispensary because of breast tumor.

**KEYWORDS:** Breast Neoplasms; Sarcoma; Carcinoma

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**Sarcoma and carcinoma of the breast: A case report**
Choosing the most appropriate (optimal) breast cancer operation is great challenge for a contemporary surgeon. Development of a new paradigm has taken place due to the evolution of knowledge in cancer biology, new effective therapies (surgery, radiotherapy and a systemic, chemo- and hormone therapy) as well as the new tendency towards the improvement of the quality of life of cancer patients. In this paper, criteria have been established for estimating the value of a breast cancer surgery for any particular patient. Breast cancer operation should be secure from the point of oncology, acceptable from the aspect of aesthetics and functionality, and effective in terms of the use of the medical and financial resources. We conducted an analysis of the evolution of our own experience in breast cancer surgery and the path of development from 1996 to 2002. By introducing of new oncoplastic concept of immediate reconfiguring of the breast after partial or total mastectomy in everyday work, we have achieved local disease control and good aesthetic results, symmetry and patients’ satisfaction with their body image after cancer surgery. Application of neoadjuvant chemotherapy in patients with primary local advance disease can improve quality of life as well as achieve good oncological and aesthetic result. Avoidance of axillary dissection is possible in node negative patients by performing sentinel node biopsy. It is very important to have in mind patient's quality of life in all breast cancer surgery, and to adjust surgical plans to each particular situation.

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Criteria for selecting optimum breast cancer surgery

KEYWORDS: Breast Neoplasms; Surgery; Quality of life

Conserving or primary reconstructive breast cancer surgical treatment: Medical and cosmetic results

KEYWORDS: Breast Neoplasms; Surgery; Conserving

Since the introduction of the conserving breast cancer surgical interventions by Veronesi in 1974, there have been medical and cosmetic dilemmas in the treatment outcome related to modified radical mastectomies. Our aim was to compare these two methods regarding indications, operative and post-operative treatment, and the final medical-oncological and cosmetic effects. We have concluded that is more simple, and economically justifiable to decide for the conserving, not reconstructive surgical treatment, in accurately established indications in the breast tumor when relation between the tumor and the breast size enables correct surgical treatment with satisfying cosmetic effects. Medical-oncological and cosmetic results in the further course of the disease are equal in both approaches. In the cases when the tumor is greater than T1, or when T1 size is unfavorable in relation to the breast size, it is more correct to choose reconstructive surgical intervention.

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Conserving or primary reconstructive breast cancer surgical treatment: Medical and cosmetic results

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Investigation of combined action of cis-DDP and irradiation to HeLa cells \textit{in vitro}

\textbf{KEYWORDS:} Radiation, Ionizing; Cisplatin; HeLa Cells

The aim of this work was to investigate the cytotoxic effect of ionizing irradiation, cis-diamminedichloroplatinum (cis-DDP) and their combination to cervix carcinoma HeLa cell line. HeLa cells were seeded and grown in nutrient medium, RPMI 1640 with addition of 3 mM L-glutamine, 10% of heat inactivated fetal bovine serum and antibiotics. Target cells were: a) Irradiated by X rays with 2 Gy daily during four days, and on the fifth day cells were additionally treated with 7 Gy (VARIAN X-6MV); b) Incubated with 0.33 mM cis-DDP; and c) Incubated with 0.33 mM cis-DDP and irradiated with the same way as described in a). Total dose applied on cells was 15 Gy. The cytotoxic effect was determined using trypan blue dye exclusion test, 24 hours and ten days after the end of the treatment. Result obtained 24 hours after the cell treatment showed that irradiation induced a direct toxicity to 17% of HeLa cells. There was no direct toxicity of applied cis-DDP concentration, although cell growth was totally inhibited. The cytotoxic action of combined treatment was 52% but treated and survived cells were giants. However, on day 10 after the end of cell treatment, the giant cells were not seen in any sample. In flasks with cells treated with cis-DDP the number of cells was reduced to almost one third of the number in control samples. Number of cells in flasks treated with irradiation alone was negligibly low in comparison to controls and samples with cis-DDP treated cells. Moreover it was at least 2.7 times lower from the number of cells where combination of cis-DDP and irradiation was applied. In conclusion, results from this experiment did not show any enhancement in toxicity of combined cis-DDP and irradiation treatment, in relation to any single treatment of HeLa cells. Therefore good results of combined treatment in the relation to the irradiation alone, seen in patients in ongoing clinical trials, seem not to be related with direct toxicity of applied combined treatment to malignant cells. It could be searched in other kinds of antitumor activity.

Diet and gastric cancer

\textbf{KEYWORDS:} Stomach Neoplasms; Diet

The aim of this case-control study, conducted in Serbia from 1998 to 2000, was to investigate whether diet is associated with the development of gastric cancer. The case group consisted of 135 patients with histologically confirmed gastric cancer and the control group of 135 (patients with orthopedic diseases and injuries). Patients and controls were individually matched by age (2 years), sex and place of residence. In the analysis we used multivariate logistic regression and found following factors to be independent risk factors for gastric cancer: More frequent consumption of saturated milk odds ratio (OR) = 1.45, 95% confidence interval (95% CI) = 0.99 - 2.16; Mutton, lamb, and veal (OR = 2.46, 95% CI = 1.11 - 5.47); Sugar (OR = 2.13, 95% CI = 1.43-3.18); Semi-white bread (OR = 0.41, 95% CI = 0.25 - 0.69), other cheeses (OR = 0.47, 95% CI = 0.29-0.77) and salting food (OR = 5.72, 95% CI = 2.63-12.42). Factors appeared to be protective for cancer of the gastric were more frequent consumption of margarine (OR = 0.41, 95% CI = 0.25 - 0.69), other cheeses (OR = 0.47, 95% CI = 0.29 - 0.77) and fish (OR = 0.39, 95% CI = 0.19-0.76).