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Epidemiological characteristics of malignant diseases

KEYWORDS: Neoplasms; Epidemiology; Preventive Medicine

Background: Every year, 10 million people are diagnosed with cancer in the world. It is estimated that, now, there are about 23 million people diagnosed with malignant diseases in the last 5 years, who either finished treatment or undergo the treatment. Developed countries have the highest number of diseased people. Namely, only the low percentage (about 10%) of malignant disease is result of genetic factors; it is considered that the cause, in majority of cases, is our behavior and influence of the environment. Aim of the paper is to present epidemiological characteristics of malignant disease, their importance in our country, as well as their prevention, which could stop rise of incidence and mortality.
Methods: Analysis of epidemiological situation of malignant diseases, based on data of incidence and mortality from these diseases in our country.
Results: According to data of Registry for Cancer of Central Serbia and Registry for Malignant Neoplasms of Vojvodina, every year 30 thousand people are diagnosed with cancer in Serbia. The most common tumors in males are tumors of the lung, colon, stomach, and prostate and in females the most common are malignant tumors of the breast, uterine cervix, lungs, and uterine body.
Conclusion: Cancer of the lung, breast, colon, and uterine cervix make about 40% of all malignant tumors in our country today. Considering present situation and experience of other European countries, prevention of these tumors is priority now. Population should be aware of importance and possibilities of prevention of malignant diseases. Programs for malignant diseases' prevention (programs against smoking, screening programs for breast cancer, cancer of uterine cervix, and colon), organized at national and international level, could cease rise of incidence ill and dying from malignant diseases which is evident in our country today.

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Prognostic factors analysis in outpatient setting: Should we pay more attention to breast cancer prevention and early detection?

KEYWORDS: Breast Neoplasms; Prognosis; Age Factors; Menstrual Cycle

Background: Identified risk factors for breast cancer are: age, menstrual status, family history, fibro-cystic breast disease, hormonal disorders and chronic psychological distress. Knowing these risk factors and insisting on the prevention enables to detect illness in preclinical, almost asymptomatic stage. Only early detection and prompt management might be accompanied by cured of. To analyze some of prognostic factors in outpatient breast cancer sample: age, menstrual status and tumor size.
Methods: A group of 97 patients with locally advanced breast cancer treated by neoadjuvant chemotherapy (FAC regimen) at Daily chemotherapy hospital of Institute for Oncology and Radiology of Serbia in 2003 was analyzed. In this group, we analyzed age distribution (using the 5-years intervals), menstrual status defined as pre-, peri-, and postmenopausal, and tumor size. For the analyses, we used methods of descriptive statistics.
Results: 36 out of 97 patients were in the age group between 45 and 49 years. This group of patients was the most frequent (37.14%). The equal number of patients (9) was recorded among women younger than 40 and older than 60 years (9.27%). In age group of 55-60, there were 12 patients (12.37%). There were 16 patients (16.49%) old between 50 and 54 years and 15 (15.46%) in the age group of 40-45. In regard of the second examined prognostic factors, premenopausal patients were more frequently pronounced - 55 (56.7%). Based on TNM staging system, there were only 41 patients (42.16%) with tumor size ≤ 2.
Conclusion: High number of patients in reproductive period and not so high proportion with small tumor size should emphasize tendency to have more patients detected in early stage disease. Because of that, educational programs and information about breast cancer should be developed and available to our population.

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Measures for prevention and early detection of breast cancer

KEYWORDS: Breast Neoplasms; Mass Screening; Sensitivity and Specificity

Background: Irrespective on localization, malignant diseases are significant social-medical and economic problem worldwide. According to WHO information, there are more than 10 million new diseased individuals per year. In most cases diagnosis are lung cancer, breast cancer and colon cancer. In Serbia, there are about 30000 new diseased individuals per year, with 4000 newly diagnosed breast cancers. The most important measures against high morbidity and mortality rate from this disease are performing prevention and early detection on all levels of health protection. Aim: To direct attention on importance of implementing organized and clearly define program of regional screening for breast cancer, according to the WHO recommendations. This is prerequisite for decrease of mortality rate, more efficient cure and better quality of life.
Methods: Medical documentation of 1144 females who underwent preventive breast survey on Oncology Department in Health Center Subotica, from January 2000 to June 2005, was analyzed.
Results: Most of 1144 inspected persons came on their own will. In women aged 45-55 years (30.5%), in 3.75% was detected presence of malignant disease of breast, 47% of which were in advanced stage. These persons were analyzed for known risk factors. 35% women with disease were 60-69 years old, 58% were pensioners, 78% live in cities.
Conclusion: It can be concluded that is very important doing activities for prevention and early detection persons with malignant breast disease, because the stadium of disease in moment of detection is in direct correlation with possibility of healing, avoiding possible progression and complications, and most important, decrease the leading mortality rate for women.

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Nursing care during preoperative management of patients with early breast cancer

KEYWORDS: Nursing Care; Breast Neoplasms; Preoperative Care

Background: Contemporary medical technology and diagnostics make early breast cancer detection and conservative breast surgery possible. Non-palpable breast lesions cannot be diagnosed without sonography, mammography, NMR.
Methods: Localization of non-palpable breast lesions is determined by targeted mammography, color Doppler ultrasound examination, FNA, lymphoscintigraphy, ROLL technique, specimen mammography, stereotaxy. To define position of nurse in preoperative management of patients with early breast cancer, including up to date diagnostic procedures and surgical interventions.
Results: Non-palpable breast lesions were detected by invasive interventions performed at the Institute for Oncology and Radiology of Serbia (IORS) since 2002: stereotactic marking - 36, specimen mammography - 170. Since year 2004, we performed: lymphoscintigraphy - 11 and ROLL technique - 2. These methods are not standard protocol for detection of early breast cancer. Preoperative management is defined according to IORS Health Care Protocol.
Conclusion: By maintaining standardized activities and respecting criteria in preoperative management we provide: improvement of the quality of life; faster and correct problem identification; determination of priorities at setting goals related to prevention and problem solving; adequate planning of interventions; reliability of nursing care, regarding patient's safety, coordination of intervention and the need for team work.

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Importance of early breast cancer rehabilitation

KEYWORDS: Breast Neoplasms; Rehabilitation; Postoperative Period

Background: Breast cancer is one of the most common types of cancer in women, and surgical treatment is most often a prime treatment. Surgical technique differ regarding radicality and they are: quadrantectomy with sentinel lymph node biopsy, quadrantectomy with axillaries dissection, modified radical mastectomy, modified radical mastectomy with implantation of endoprothesis in one act. The complications: shoulder stiffness, hypertonicity of shoulder and neck muscles, pain syndrome and body imbalance, may occur. In order to prevent these complications it is important to start with early rehabilitation during 24h after surgery. Aim: To show importance of early rehabilitation in preventive, alleviating, and eliminating consequences of surgical treatment.
Methods: Early rehabilitation of breast cancer patients is carried out at the IORS by senior physiotherapist, in the period from 2003-2005. Rehabilitation of these patients included: hands positioning in bed, active exercise in order to enhance elasticity of cervical spine, improve range of motion in shoulder point, stretching of pectoral muscle, strengthening of shoulder and arm muscles, postural exercise, attaining safety positional measures in everyday life.
Results: By these exercises and by education of patients, the improvement in shoulder and arm motion, preservation of motion in shoulder point on the side of surgery, diminished pain in neck and back, restitution of strength in shoulder and arm muscles, preservation of good posture, were achieved.
Conclusion: Properly conducted rehabilitation treatment of patients in postoperative course provides faster rehabilitation of patient's physical and psychological functions and faster reintegration into everyday life.

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Core biopsy in diagnostics of neoplastic growths in breasts

KEYWORDS: Breast Neoplasms; Biopsy, Needle

Background: Core biopsy is one of the more recent methods for taking breast tissue samples for PH verification by means of pericutaneous needle. In the surgical department of the Institute of Oncology Sremska Kamenica, this technique is performed in ambulatory conditions.
Methods: Core biopsy is performed with local anesthesia and provides a high diagnostic accuracy in 95% of cases. Core biopsy is not used for intraoperative ex tempore analysis, which significantly reduces the duration of the operation. This technique is highly effective and economic. In case of benign tumors, it saves patients from unnecessary operations; in case of malignant tumors, it makes possible for preoperative multidisciplinary decisions regarding the treatment planning.
Results: Seventy-two core biopsies were performed at the department for surgical oncology in Sremska Kamenica from March 9, 2004 to October 17, 2005.
Conclusion: The use of core biopsy has a great justification because it shortens the time for diagnostics and save the patient from unnecessary operations in case of verified benign tumors.

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Stereotaxic marking of breast cancer non-palpable lesions

KEYWORDS: Breast Neoplasms; Nursing Process; Stereotaxic Techniques

Background: Stereotaxia is a preoperative diagnostic method that enables cancer detection in early stage and small volume excision biopsy. Clinical examination and screening mammography precede stereotaxia, and then follow excisional biopsy of the lesion, specimen mammography, ex tempore histopathologic verification, and adequate surgical procedure. Nursing role is very important in all preoperative and intraoperative procedures. We review this procedure as contemporary preoperative diagnostic method of non-palpable breast lesions with aim to indicate importance of nursing activities.
Methods: Stereotaxic method has been performed in 66 patients at Institute of Oncology and Radiology of Serbia since January 2002, in patients with suspect lesions detected by mammography. Nursing activities are as follows: giving psychological support before intervention, preparation of adequate documentation, giving information on term of intervention to all members of the team, preparation of necessary material, assistance to surgeon during intervention, in cooperation with radiologist and radiological technician, providing care to patient after intervention and transport to intensive care unit, forwarding of excision tissue for specimen mammography and ex-tempore analysis.
Conclusion: Nurse, as a member of the team has special responsibility regarding coordination (documentation, professional team, radiological diagnostics) and also cooperation with patient, related to providing of as good as possible psychological and professional support.

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Teamwork in treating chest metastatic changes as sequelae of breast cancer

KEYWORDS: Breast Neoplasms; Patient Care Team; Nurse's Role

Background: Breast cancer accounts for 20% of lethal outcomes in oncology immediately after lung cancer (in women over 50 years), with first position in population between 35-50 years. Breast cancer metastases in central nervous system, liver, bone, lung, and pleura. Aim: To present nursing activities in patients diagnosed with breast cancer, having chest metastases.
Methods: Totally 6064 patients were hospitalized at Institute for Lung Diseases and Tuberculosis of Clinical Center of Serbia in 2004. Two hundred and fifty three patients were hospitalized with secondary lung cancers, out of which 40 ones had diagnosis of the primary breast cancer. Clinical presentation of chest metastatic changes, due to breast cancer is described as follows:
- Pleural discharge
- Progressive dyspnea
- Thoracic pain
- Changed psychophysical condition

Nursing activities include:
- Active participation in patient's care
- Taking therapeutic measures
- Assistance at diagnosis establishing

Conclusion: Goal of the team, consisting of physicians and nurses is to help patient applying contemporary oncology treatment methods. Because these patients are frequently in poor condition, nurses have significant role in enhancement of patients' quality of life applying symptomatic treatment, in patients' and their family education about disease and treatment.

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Education of nurses related to breast cancer prevention

KEYWORDS: Education, Nursing, Continuing; Preventive Medicine; Breast Neoplasms

Background: Contemporary model of continual education of oncology nurses is important for improvement of health care and professional training of nurses. Department for Educational Activities organizes and conducts Educational Program for oncology nurses in domain of prevention of malignant diseases. Former experience shows that it is necessary to improve content of the Program in all segments. The most significant novelties relate to primary and secondary prevention and early detection of the breast cancer, which is the most common malignant disease in Serbia. Aim: To perceive knowledge level of the nurses related to breast cancer prevention, prior and after conducting Educational Program; to perceive importance of conducting Educational Program and practice.

Methods: Twenty four nurses (N=24) participated in conducting Educational Program on breast cancer prevention, of similar age and approximately up to a year of working experience in oncology. The Program was conducted during year 2003/2004 at Institute of Oncology and Radiology of Serbia. The most significant topics were: risk factors for breast cancer; clinical manifestations; screening programs, and participation of nurses in the primary and secondary prevention and early detection of breast cancer. The lectures were combined with practice conducted at Department for Epidemiology and Prevention (organization and conducting of screening) and outpatient departments for breast cancer early detection. Nurses-technicians were watching clinical examination of the breast performed by a surgeon, palpitated pathological changes with surgeon's suggestions, and practiced palpitation of a change on silicon doll (with implanted changes) in presence of a nurse-mentor, in the premises for education.

Results: Analysis of results, including answers to important questions, showed that 62.5% participants in pretest had stated only hereditary as high risk factor for developing breast cancer, but after the test 92% of them stated hereditary, hormone disorders, dysplastic changes, injuries and age. Regarding defining primary and secondary prevention from breast cancer, 21% of the participants gave satisfying answers in pretest, but after the test, 87.5% of them had high level of correct answers. Dissatisfying knowledge showed 96% of the participants related to question, "What is screening" in a pretest, but after completed Program the result was 79%. As to the screening method, 87.5% of the participants gave no answer, and other answers were wrong in a pretest, but at final test, 92% of them gave positive answers stating anamnesis, self-detection of breasts tumor and education. The participants were satisfied with the Program quality and practice, and all of them estimated it as excellent.

Conclusion: High level of knowledge at final test justifies conducting of education related to breast cancer prevention. Wrong replies in high percentage in pretest show insufficient basic knowledge of nurses gained in the secondary education. Also nurses' motivation is important and further correction of the Program for obtaining better results. Breast cancer early detection, treatment and slowing down progression, prevention of complications, limitation of disability result in longer survival and better quality of life. Nurses can independently participate in screening tests and breast detection in developed countries, but it is not the case in our country. Until now, organizers of Educational Program and the nurses-participants were satisfied with physicians' understanding that nurses may improve their knowledge participating in clinical examinations.

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Postoperative nurse care of patients conservatively treated for early breast cancer

KEYWORDS: Breast Neoplasms; Postoperative Care; Rehabilitation; Nurse's Role

Background: Modern diagnostic procedures allow early detection of breast cancer and conservative breast surgery. Conservative breast cancer treatment means better aesthetic effect for the patient and provides the same therapeutic outcome as the radical breast cancer surgery, which is far more complicated to deal with in the postoperative course. Our goal is to adjust our postoperative care of patients to their needs and demands, especially in the field of psychosocial support.
Methods: During the year 2004, at the Department of Breast Surgery of the Institute of Oncology and Radiology of Serbia, 925 patients were treated for breast cancer. Conservative breast surgery was performed in 217 patients. Nurse care included the following activities: 1) early postoperative reanimation, 2) wound dressing and drainage check up, 3) Physical rehabilitation, 4) Psychosocial rehabilitation, and 5) Patient education
Results: Our patients had minimal percentage of wound infections, excellent physical and psychosocial rehabilitation. They also expressed great interest in learning about their illness and further modalities of treatment.
Conclusion: Increasing number of conservative breast surgery makes nursing less difficult because the process of rehabilitation is much faster. The role of a nurse is still very important in a sense that they speed up rehabilitation process and represent a crucial element of a surgical team.

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Follow-up of side effects in patients with breast cancer treated with combination of capecitabin/paclitaxel

KEYWORDS: Breast Neoplasms; Paclitaxel; Deoxycytidine; Drug Toxicity; Nurse's Role

Background: Application of Capecitabin (Xeloda®, Roche) and Paclitaxel (Taxol®, BMS) can have different side effects, i.e. toxicities, of which intensity depends on drug dose and way of application. The treatment is conducted by team (physician and educated nurse) who will acquaint the patients with possible side effects. Aim of this research is to present importance of nurses' interventions regarding patients' education, prevention of the side effects and treatment of already occurred complications of chemotherapy.
Methods: In the period of April 2002, up to June 2004, phase I clinical study was conducted at Institute of Oncology and Radiology of Serbia, which included totally 11 patients with metastatic breast cancer. All patients received combination of Capecitabin, dose of 2000 mg/m^2 during 2 weeks, with pause lasting one week and Paclitaxel, dose of 60-90 mg/m^2 in weekly intervals.
Results: The most common side effects were: diarrhea, stomatitis, dermatitis, alopecia, nausea and vomiting, feeling of fatigue and weakness and sensory neuropathy, mildly expressed in all patients. All the patients kept diary on the side effects once a week, and this education decreased their anxiety and fear related to application of new chemotherapy. Stomatitis prevention resulted in fact that only 2 patients had stomatitis grade II from 55 cycles of given chemotherapy, and due to skin prevention only 3 patients out of 55 cycles, had dermatitis grade 2. Toxicity grade 3 related to nails and syndrome of hand/foot grade 3 were registered in two patients. These toxicities were treated with aseptic bandaging technique, so the changes were healed for less than 2 weeks.
Conclusion: Education on possible toxic side effects related to drugs' use, the prevention of their occurrence, and correction and occasional treatment of the side effects, significantly improved tolerance to the therapy applied in our group of patients.

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Genetic susceptibility for breast and ovarian cancer: BRCA1/2 gene mutations detection

KEYWORDS: Genetic Screening; Genes, BRCA1; Genes, BRCA2; Neoplasms

Background: Breast cancer is one of four the most frequently occurring malignant tumors in humans. In the same time, it is the cancer with the highest mortality in female population. In general, population, lifetime risk for breast cancer is estimated on 10% - in other words, every eight woman develops breast cancer during her lifetime. Among the factors affecting the development of breast cancer, the most significant are older age, early menarche, late menopause, nullparity. However, familiar clustering of disease describing genetic susceptibility is considered as the most important risk factor. About 5 to 10% of all breast cancer cases are considered hereditary. In the middle of nineties two BReast CAncer genes were cloned - BRCA1 and BRCA2. About 70 -90% of all hereditary breast cancers are associated with BRCA1 and BRCA2 mutations. BRCA1/2 mutations harbor lifetime risk for breast cancer ranged from 50% to 85%, while the risk for bilateral breast cancer in BRCA1 mutation carriers reached up to 60%. Lifetime risk for the development of ovarian carcinoma in BRCA1 mutation carriers is up to 40%, while BRCA2 mutation carriers have lifetime risk up to 20%. The aim of the study is to recognize steps required for implementation of genetic testing process at the Institute for Oncology and Radiology.
Methods: Since approximate number of newly diagnosed breast cancer cases per year at the Institute for Oncology and Radiology of Serbia is about 1200 cases, implementation of BRCA genetic testing in our institution is highly recommended. The first step in implementation of genetic testing process is identification of individuals at risk for hereditary form of disease, according to established criteria. The presence of mutation is then analyzed by direct DNA sequencing. After the result has been disclosed, very important and complex step is providing of post-test counseling and adequate follow-up, especially for BRCA mutation carriers.
Conclusion: Testing of genetic predisposition for breast and ovarian cancer is very complex, involves more steps and requires more time than the majority of other clinical tests. Because of that, it must be performed by highly educated multidisciplinary team.

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Living with cancer - Experience and results in conducting European Educational Program (EEP) for patients and their family members

KEYWORDS: Patients; Family; Education; Neoplasms; Program Evaluation

Background: European Educational Program was conducted at Institute of Oncology and Radiology of Serbia (Department for Educational Activities) in the period of November 1998 until June 2005. The Educational Program "Living with Cancer" has been developed for group education of patients and members of their families. Structure of this Program helps maintaining consistency and enables flexibility in teaching. Information from domain of cancer, diagnosis, treatment and emotions (what person experiences during disease) are alternatively integrated in domain of learning and practice. The aim of the study was to evaluate the Educational Program by patients and members of their families.
Methods: The sample consists of patients diagnosed with cancer with different treatment modalities and disease localizations (N=352), and family members chosen by the patients (n=82). After conducted Educational Program, all participants obtained questionnaires with five questions related to their estimation quality of sessions (quality of obtained information, method of the sessions conducting etc.), as well as estimation of quality of brochures related to topics of the sessions they obtained at the beginning of each session. Instruments of the research: Questionnaire with five questions for evaluation of each session and open type interview.
Results: Quality of conducted seminar was estimated as excellent by 49% and 54% patients and family members, respectively. Obtained information were easy for understanding, according to positive replies of the patients (96%) and of family members (98%). All patients and members of their families stated that they had learned much during the Educational Program. Lectures and teamwork (mutual exchange of experience) caused positive emotions in 68% of the patients and 72% of family members. According to patients and family members' suggestions, special attention at the Program designing should be paid to nutrition, alternative therapy and rehabilitation. The suggestions also refer to marketing, in a sense of informing the public on importance of education of the patients and their family members, as new activity of the Institute.
Conclusion: Results of total Program estimation confirm importance, necessity and utility of application of educational activities at the Institute. Prompt information and psycho-emotional support of the educational team, enabled the patients and their family members to reestablish control over their health and life. Positive emotions in majority of the participants showed that we justified aims of European Educational Program.

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Surgical treatment and postoperative care of melanoma patients

KEYWORDS: Melanoma; Surgery; Postoperative Care; Nursing Process

Background: Melanoma is known as one of the most aggressive tumor in oncology. During the past six decades, many types of treatment were used but only surgery showed some results. Our aim was to present: most common types of surgical treatment, most common postoperative complications, and most common nursing procedures
Methods: In 2004 we gathered number of melanoma surgeries, prevention of postoperative complications, and most commonly used types of nursing procedures.
Results: Out of 180 melanoma surgeries there were: 60% radical excisions, 30% dissections of regional lymph nodes and 10% metastasectomies. We had 5% of postoperative complications and they were: seroma (60%), infection (30%), dehiscence (4%), transplant rejection (4%) and hemorrhage (3%), in which prevention and nursing care have great importance.
Conclusion: Comparing to other surgeries, melanoma surgery lasts shorter and therefore patients spend less time in general anesthesia. Experienced surgical and nursing team and their procedures result in very low percentages of postoperative complications.

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Nursing care of patients diagnosed with metastatic melanoma treated by chemotherapy

KEYWORDS: Melanoma; Neoplasm Metastasis; Patient Care; Nursing Process

Background: Since surgical approach is primary treatment of melanoma, chemotherapy should be used in metastatic setting. Nursing care of these patients is based on assessment of health condition, identification of basic needs, defining of problem, cause and manifestation of actual and potential nursing diagnoses and collaborative problems (CP). Aim: 1. To identify the most common nursing diagnoses and collaborative problems, as well as criteria for carrying out standard nursing interventions (dependent and independent ones); 2. To point out importance of standardized nursing activities related to providing of high health care quality.
Methods: Retrospective analysis of health care process documentation was used in the paper, as well as accessible literature data on malignant melanoma.
Results: Unfortunately, metastatic form of malignant melanoma is still incurable disease Standard chemotherapy is Dacarbasin with approximately 20% of response rate. Nursing interventions are patients' education about side effects and try to achieve as good as possible quality of life. Analyzing documentation of health care process, we found the most common nursing diagnoses and collaborative problems in these patients: 1. Lack of knowledge of the patients and families on application of chemotherapy and its side effects; 2. Fear and uncertainty related to treatment outcome; 3. CP of anemia; 4. CP of thrombocytopenia; 5. CP of postchemotherapy emesis, which is a criteria for independent nursing intervention.
Conclusion: Nursing diagnoses and CP require precise, systematic and continual health care provision in these patients. In this way, maximal adaptation to requirements, needs and expectations of these patients could be achieved with aim to enhance quality of life.

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Investigation of some quinols and epoxiquinols as potential antimelanoma agents using MTT test

KEYWORDS: Melanoma; Antineoplastic Agents; Tetrazolium Salts

Background: The search for new antitumor agents is the imperative in modern oncology. The aim of this work was to investigate the antiproliferative activity of eight newly synthesized quinols and epoxyquinols against human melanoma cell line *in vitro*.
Methods: Briefly, melanoma Fem-x cells were trypsinized, counted and seeded to flat bottom 96 well plate, at a concentration of 2000 cells per well. Target cells were added to each well in 0.1 ml of nutrient medium (RPMI supplemented with 10% fetal calf serum), and the plate incubated for 24h at 37˚C. Stock solutions of investigated compounds were dissolved in DMSO at concentrations of 10 mM, and afterwards diluted by nutrient medium to final concentrations ranging from 0 to 200 μM. After that, 20 μl of MTT solution (5 mg/ml PBS) was added to each well. Plates were incubated for further four hours at 37˚C in humidified atmosphere with 5% CO_2. Then, 100 μl of 10% SDS was added to the wells. Absorbance was measured at 570 nm the next day.
Results: Concentrations inducing 50% decrease in cell survival (IC50) obtained from three independent experiments, proved that investigated quinols and epoxyquinols exerted a dose dependent antiproliferative action towards investigated melanoma cell line.
Conclusion: Four of eight investigated compounds have shown significant cytotoxicity toward target cell line. They could be promising agents for the treatment of human tumors, and are candidates for further analyses on experimental animals, *in vivo*.

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Immunohistochemical proving of malignant melanoma from metastatic lymph node

KEYWORDS: Melanoma; Neoplasm Metastasis; Lymph Nodes; Immunohistochemistry

Background: Malignant melanoma (MM) is a skin tumor of which incidence is rising in our country. Apart from the skin, MM can occur in other organs, although rarely. It is the most common on exposed parts of the body, in blond and redheaded persons. Histopathological diagnosis is established by biopsy, dying according to HE method. However, there are cases with metastatically increased lymph nodes in the region of inguinum, neck or axilla, without evidence of the primary tumor, suspected to MM. In those cases, IHH is applied to determine origin of the primary tumor in metastasis, and exclude possibility of metastasis of other malignant tumor (usually cancer, or anaplastic lymphoma). Immunohistochemistry (IHH) is a method, which detects spots of specific antigens in tissues and cells, based on antigen-antibody reaction. Aim: To prove presence of the secondary metastatic changes in lymph nodes with the help of this method.
Methods: IHH method is carried out by using LSAB2 or LSAB+ system, applying monoclonal antibodies of HMB45, S100, CK, LCA in this case, link biotin visualization system and DAB+ is used as chromogene. This method is carried out by laboratory technician in our laboratory.
Results and conclusion: On the basis of previous work in our laboratory, and regarding diagnostics of IHH, we may say that melanoma cells in this case, show membrane positive to HMB 45, diffuse and core positive to S-100, while CK and LCA are usually negative. After successfully performed technical part of the job, it is easier for pathologist to establish diagnosis having better insight into disease.

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Radiotherapy of the carcinoma of cervix uteri

KEYWORDS: Cervix Neoplasms; Carcinoma; Radiotherapy

Carcinoma of the cervix uteri is a complex health, economic, and social problem. The health aspect of this problem results form its incidence in the morbidity structure of women. Social aspect involves the function of woman as a mother and her role within psychophysical sphere of a family.
- Epidemiology (incidence, risk factors)
- Histopathological characteristics (planocellular, adenocarcinoma)

Therapy: surgery, radiotherapy, chemotherapy

Radiotherapy for the carcinoma of the cervix uteri

Radiotherapy for the carcinoma of the cervix uteri involves brachythrepay and teletherapy. Microselectron and Selectron are used in brachytherapy and teletherapy is applied by linear accelerator (for conventional and conformal radiotherapy). 3-D conformal irradiation has variable intensity. Its advantages are:
- More favorable percentage of dose depth compared to given dose
- Ionizing irradiation absorption is similar in all tissues
- Accurate dose distribution enables the protection of normal tissue
- Complication occurrence is minimal

Prognosis

Carcinoma of the cervix uteri is not a radiosensitive tumor. However, its accessibility to various interventions and high resistance of normal tissue to irradiation allows the application of high doses.

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Nursing care of patients with cervical carcinoma treated by brachytherapy

KEYWORDS: Cervix Neoplasms; Clinical Protocols; Brachytherapy; Patient Care Team

Background: Cervical cancer is frequent in our female population. Approximately 71% of all malignant tumors of female genital organs involve cervical cancer. Surgery and radiotherapy are basic. Radiotherapy is only one radical treatment in inoperable cases. In operable cases, both methods are equally used. There are two modalities radiotherapy - transcutaneous and brachytherapy (brachytherapy can be intracavitary and intrasticial). Aim: Description of medical care, which imply competent nurses who assist to radiologists and who are a part of brachytherapy team.
Methods: Processing of nurse duties and nursing care protocols in brachytherapy preparing, treatment and patients education.
Conclusion: Organized multidisciplinary team commitment is necessary for adequate brachytherapy. Presence of competent and efficient nurse is important for teamwork.

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Health care of patients diagnosed with bladder cancer

KEYWORDS: Bladder Neoplasms; Nursing Process; Patient Care

Background: Bladder cancers make approximately 4 to 5% of all cancers. Incidence is 3 times higher in males than in females. Possible etiologic factors are: exposure to chemicals used in industries of rubbers, textile and smoking. Patients with bladder cancer usually have macroscopic hematuria or signs of frequent urination and ureteral obstruction. The aim of this work is to analyze the role of the nurse in treating of acute complications.
Methods: From March 1, 1998 to August, 2004, eighty patients diagnosed with bladder cancer were treated with radiotherapy at Institute for Oncology and Radiology of Serbia. Transuretal resection had been previously performed in all patients. Twenty patients had TCC grade I 33, one had grade II, and 27 patients had grade III. Nursing interventions included postoperative care of the patients, patients' education on usage of spasmolytics and adequate hydration, wet desquamation of the skin of irradiated region treated by gentiana violet, catheterization of the bladder in hard diuretic discomforts, regular irrigation of catheter, and emotional support.
Results: Acute complications were registered in 35 patients. Wet skin desquamation of irradiated region had 12 patients, diuretic discomforts had 14 patients, and 9 patients had diarrhea.
Conclusion: Adequate care and symptomatic therapy enabled the completion of irradiation without pause in all patients.

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Immunohistochemical analysis in diagnostics of primary poorly differentiated stomach cancers

KEYWORDS: Stomach Neoplasms; Immunohistochemistry; Antibodies, Monoclonal

Background: The most frequently, intestinal type of stomach cancer is well and moderately differentiated. Its existence is in correlation with existing chronic atrophic bacterial gastritis with complete intestinal metaplasia, as sequela of gastric mucosa dysplasia. Aim: Acquaintance with IHH analysis is necessary in diagnostics of metastatic lymph nodes, and differentiation between metastatic deposits of stomach cancer and metastases of breast cancer, ovaries, uterus, tumors of pancreatic biliary system and prostate.
Methods: IHH method is carried out using LSAB2 system with monoclone antibodies CA, CK20, CK7, CK17 and ER. Histochemical analysis for mucine type is muci-carmine majer and alcian blue.
Results and conclusion: Cells of intestinal type stomach cancer are CeA positive, CK20 positive, CK7 positive, CK17 negative, ER negative, which is especially significant for diagnostics of poorly differentiated intestinal type of stomach cancer, and for its differentiation from non-differentiated and non-classified primary stomach cancers.