63. ABSTRACTS

THE NEW ARMENIAN
MEDICAL JOURNAL
Vol. 3 (2009), N 3, 63 - 75
www.ysmu.am

VESSEL-BY-VESSEL TECHNIQUE OF LATERAL PARAMETRIA RESECTION IN RADICAL HYSTERECTOMY

Asilbekyan G., Stepanyan A.

Department of Gynecology, "Shengavit" Medical Center, Yerevan, Armenia
E-mail: stepanyan.artem@gmail.com

***Keywords*:** radical hysterectomy, lateral parametria, resection.

Introduction. Adequate resection of pericervical connective tissue (anterior, lateral, and posterior parametria) is a keystone of radical hysterectomy. Since the pelvic sidewall is the most common site for local relapses of à disease, the maximal resection of lateral parametria (LP) is a crucial step of the procedure. The standard technique (ST) implies clamping and transsection of lateral parametria close to the pelvic sidewall. The vessel-by-vessel technique (VBV) is carried out by dissection and individually transsection and securing of vessels of LP at the site of their branching from internal iliac vessels. Thereby, theoretically, in contrast to standard approach a larger LP can be resected.

Aim. The aim of the study was to assess radicality of VBV technique in comparison with the ST.

Methods. In 18 patients operated for IA2-IIA cervical cancer and IIB endometrial cancer ST and VBV have been randomly used in 10 and 8 cases respectively. ST was accomplished by clamping entire LP with a Kelly clamp and then its transsection and securing with 2-0 absorbable suture. VBV was performed by sharp and blunt dissection of fatty tissue, isolation, and individual securing of visceral branches of internal iliac vessels by 3-0 absorbable suture (arteries) and ligature vessel sealing system (veins). In both techniques, the caudal limit of dissection was the middle rectal artery.

As assessment criteria operative time, intraoperative blood loss and length of resected LP were used.

Results. Mean operative time in ST and VBV group was 150±15 *min* and 180±12 *min*, respectively). Mean blood loss in ST group was 360±50 *ml* and in VBV group it was 380±40 *ml*. Mean length of resected lateral parametria in ST and VBV groups was 2.9±0.8 *cm* and 4.5±0.6 cm, respectively.

Conclusion. Despite VBV is more time consuming if compared with ST, it is a safe technique, which does not increase intraoperative blood loss and allows to resect larger LP and thus to be more radical.

MOLECULAR PATHOGENESIS OF CHILDHOOD LEUKEMIA

Borkhardt A.

Department of Pediatric Oncology, Hematology and Clinical Immunology, Heinrich-Heine University, Dusseldorf, Germany
E-mail: arndt.borkhardt@med.uni-duesseldorf.de

Keywords *Leukemia, childhood, pathogenetic aspects, cytogenetic studies*

Leukemia arises in the bone marrow as a result of disturbance of genetic material in hematopoietic precursors caused either by gene mutations or inappropriate expression of the relevant oncogenes. This heterogeneous group of malignant disorders collectively represents 8-9% of all cancers affecting people of all ages. In childhood, however, leukemia represents the most frequently found malignancy accounting for up to 35% of all cancers in children. Cytogenetic observations revealed that specific recurring chromosomal translocations were associated with a particular type of leukemia. Along with methodological

improvements for detection of chromosomal gene rearrangements, e.g. by various chromosomal banding-, FISH-, CGH-, array or PCR- techniques, the frequency and specificity of chromosomal aberrations have become evident. Given the prognostic significance of numerous chromosomal aberrations in both children and adults with leukemia, large-scale diagnostic screening programs have been established during the last two decades. It has become clear that these chromosome rearrangements were directly involved in the cellular transformation of haematopoietic precursor cells. In addition, for many of these chromosomal abnormalities mice models have been generated which further helped to highlight the pathogenetic role of specific fusion gene.

I will discuss the most important discoveries showing how specific genetic aberrations may guide therapy for modern, risk-adapted chemotherapy approaches. A special focus will be given to infant leukemias with chromosome 11q23/MLL rearrangements, as our laboratory has been involved in detection and characterization of several genetic abnormalities within this particular group of patients.

THE PROBLEMS, ACHIEVEMENTS, AND PERSPECTIVES CONCERNING PEDIATRIC LEUKOSOLOGY

Danielyan S.

Department of Chemotherapy, Muratsan Hospital, Yerevan State Medical University after M. Heratsi, Yerevan, Armenia
E-mail: danielsamvel@yahoo.com

Keywords: pediatriy, oncohematology, bone marrow, cytological and cytogenetic diagnostics.

The aim was to dwell on the way that pediatric oncohematology has passed during the recent fifteen years, as well as our achievements, omissions and programs in this sphere. In the Republic of Armenia the rate of illness related to leukemia is close to the international index, which is 35 new diagnosed patients each year (in terms of 1 mln. child population). These patients were admitted from different regions of Armenia, NagornoKharabakh and from Javakhk. The diagnosis was asserted by: 1. Periphery blood analysis; 2. Bone marrow morphological, cytochemical and partly cytogenetic analysis; 3. CSF morphological analysis.

Before putting the new treatment methods into practice, each child suffering from leukemia was “condemned to death”. From the children cured by old treatment methods only four-five children recovered and are alive. In 1993-1994, the first re-trained specialists came to Armenia from the West and Russia. The main treatment method became BFM (Berlin-Frankfort-Munster) program, which was fully brought to life only at the end of 1995, when it was possible to establish relations with our German colleagues. The first patient on myeoblastic leukemia underwent full treatment. The diagnoses were repeated and asserted in the leading German clinics. The first group of professors, who arrived in Armenia, approved the specialists and the professional laboratory facilities. The first meeting with Haynce,the first ambassador of Germany in Armenia, took place. It really had a turning significance for children on leukemia. Journalists from the Southern Germany (Baden- Wurtemberg) from Loitkirikh were invited to Yerevan, who made special reporting on pediatric leikosology in Armenia that was published in the “Shvebishe Zeitung” paper. Here really an unprecedented contribution started. Owing to the above-mentioned contribution, up to now it is possible to acquire all the necessary medicines.The foundation “Hilfe für Armenie” successfully carried out the whole process: almost 100% of cytostatics were assigned by Germany and it was already available for the Armenian children to undergo BFM that is one of the most effective oncohematological programs and costs more than 100.000 euros in Western countries. Gradually, we possessed all the necessary medicines for current accompanying treatment: liquids, antibiotics, antifungal, antivirus, antiemetic, the marrow supporting medicine, blood preparations, etc. In fact, the conditions, where the program was being carried out, caused the doubtful attitude of our Western colleagues

as the efficiency of the program depended on the conditions of the clinic (the clinic did not have proper conditions). In the following years, the main problems concerning the diagnostics and treatment were solved. The cooperation with the German leading clinics and the daily contribution of the Embassy of German Federation, the possibility of sending bone marrow morphological analysis by diplomatic post in Western clinics in complicated diagnostic cases made it possible to get the asserted diagnose in one of the leading clinics only in two-three days. The Armenian specialists felt more confident after the above-mentioned events. The usual visits of German specialists' o Armenia became quite common and all the hard cases were being discussed with them. The possibility of getting better and recovery of patients was gradually increasing. New friends from Berlin, Vienna, Dusseldorf, and the USA joined our West German friends. Anyhow, in Armenia (as in all countries) the oncohematology department is considered to have the most mortality cases. The big amount of liquid injection, the existence of the cardiotoxic, neurotoxic, pancreotoxic, hepatotoxic, nefrotoxic medicines in the program as well as the work with + in case of leucopenia and pancitopenia sometimes infection could make and sometimes made it fatal (I mean sepsis). The next very important reason for mortality cases in Armenia, as well as in other countries was the hemorrhagic syndrome, which really needed right correction. However, more than 300 children were cured (which is 70% of children suffering from acute lymphoblastic leukemia (ALL)). Unfortunately, our hard and complicated work does not always have the desirable results. We could not avoid some loses. All the clinics, which carried out such chemotherapy courses created a very efficient work method that is multi-profile hospital with the staff working twenty-four-hour plus modern reanimation clinic. To have a chemotherapy without these components (which has no tendency to simplify the whole process, just vice versa the programs are getting more and more complicated and in the registrant types the relapse must get complicated too) is like a Sisyphus' work. The opening of the University Clinic, which took place a year ago, put an aim to cover all the above-mentioned deficiencies. The wonderful hygienic conditions have decreased the possibility of sepsis. The well-equipped reanimation clinic and the twenty-four-hour available stuff changed the on-duty stuff's complex of inability. Our one-year experience at the University clearly shows the difference. We have already overcome all the difficulties concerning high-dose chemotherapy (with anti-relapse blocks). The twenty-four-hour laboratory monitoring is already usual for us. Numerous specialists such as cardiologists, reanimatologists, allergologists, neurologists, endocrinologists, and surgeons are gradually getting involved in oncology vortex. Last year these days, a memorandum was signed between the Medical University «Help Armenia» charity foundation, which allowed us to solve the problems of acquiring the medicine. The previous years we had agreement between the University and the Berlin Charité, and Dusseldorf University clinics, as well as renewed the relationships with Moscow. Of course, a great deal should be done in future, but we really had some clinical cases with successful outcomes which seemed unrealistic for Armenia.

FOLLICULAR LYMPHOMAS: RECENT ADVANCES IN TREATMENT STRATEGIES

Hellriegel K.-P.

Klinik für Innere Medizin – Hämatologie und Oncologie Vivantes Klinikum Am Urban, Berlin, Germany

***Keywords*:** follicular lymphomas, treatment, immuno-chemotherapy.

The combined immuno-chemotherapy is now the standard of care for follicular lymphomas.

The addition of rituximab (R) to chemotherapy significantly improves overall survival (OS) in previously untreated follicular lymphoma (FL) and does not significantly increase toxicity compared with chemotherapy alone. This statement is especially remarkable since no progress on OS was achieved during the past three decades.

In asymptomatic patients, there is still a role for "watch and wait". Patients with stage I, II, and limited

stage III (up to 5 lymph node regions involved) have a curative chance. The combined immuno-chemotherapy is indicated in patients with disease-associated symptoms (8 symptoms), hematopoietic insufficiency (anaemia, neutropenia, thrombocytopenia), rapid tumor progression, bulky disease, autoimmune phenomena, hypogammaglobulinemia with relapsing infections and hyperviscosity syndrome due to monoclonal gammopathy.

Which chemotherapy should be chosen in combination with rituximab? Preliminary results of a randomized phase III study show that the combination of bendamustin plus rituximab is not inferior to CHOP-R in regards to efficacy and is associated with less toxicity in first-line treatment of FL.

Rituximab maintenance seems to be superior as to progression free survival in all patients, independently of prior treatment or remission status (CR or PR).

For patients with relapsed disease, R-chemotherapy plus R-maintenance appears as the optimal option.

CURRENT MANAGEMENT OF RELAPSED CHILDHOOD ACUTE LYMPHOBLASTIC LEUKEMIA

Henze G.

Otto-Heubner Center for Pediatrics, Charité Campus Virchow-Klinikum, Berlin, Germany
E-mail: Guenter.Henze@charitr.de

Keywords: acute lymphoblastic leukemia, childhood, pediatric oncology.

Despite high cure rates, the relapse of acute lymphoblastic leukemia (ALL) is still a frequent diagnosis in pediatric oncology. Even with the best available treatment regimes, the relapse rates are still in the range of 15 to 20%. Because of risk adapted front-line protocols the relapses occur widely per random, but at a higher frequency in patients with high-risk for relapse features. Since stem cell transplantation (SCT) has increasingly become a regular part of the first-line treatment, relapses occur also in patients, who had already been treated with SCT, and these children are rather not eligible for retreatment according to common relapse protocols. These are the reasons why patient numbers in relapse trials have decreased over the past years.

In the multicentric international ALL relapse trials of the BFM Relapse Study Group we have registered more than 2000 patients since 1983. The probability of event-free survival is about 33%, and the overall survival is about 40% for patients, who have been treated within one of the 6 consecutive trials. These figures show that the prognosis and the chance of long-term survival are substantially reduced in case of relapse. The lower remission rates are due to a higher rate of induction deaths as a consequence of reduced tolerance to treatment after previous organ toxic frontline therapy. In addition, non-responses to treatment are common, since surviving blast cells had the chance to develop resistance towards commonly used antileukemic drugs. Even if a complete remission (CR) can be achieved, the rate of subsequent relapses is high.

Time, site, and the immunological phenotype of the leukemic cells are the most important clinical predictors of prognosis. Early time point of relapse is associated with a worse prognosis; even if a CR can be achieved it cannot be maintained with chemotherapy, and effective salvage therapy has therefore to include SCT for the majority of children. Surprisingly, children with a combined bone marrow (BM) relapse have a better prognosis than the ones with an isolated BM relapse. Children with a relapse of B-cell precursor ALL have a better outcome as compared with T-cell leukemias.

In addition to these clinical parameters, genetic and molecular genetic findings have been shown to have an important impact on outcome. Fusion genes can be found at about the same frequency as in front-line studies; however the percentage of Philadelphia chromosome (Ph^1) positive ALL relapse has become less due to the fact that most of the Ph^1-positive leukemias are diagnosed at first presentation, and stem cell transplantation is being performed in the majority of these children. Whereas, like during

front-line therapy, the TEL-AML1 positive patients have a better prognosis also after relapse, prognosis of Ph[1]-positive ALL relapse is dismal.

In recent years, another factor has gained increasing importance for prognostication: like in front-line trials the response to therapy is one of the most significant single parameters determining the outcome. In the current BFM relapse trial ALL-REZ BFM 2002, we use the response to therapy measured by quantification of minimal residual disease based on molecular genetics for stratification of intermediate risk patients. Good responding patients will be maintained on chemotherapy, whereas patients with a high MRD level at day 36 of treatment are being referred to SCT. The response to therapy determines also to a certain extent the choice of a stem cell donor. SCT from matched unrelated donors should only be performed in poor responders whereas transplants from siblings may also be performed in good responders because the transplant related mortality has become very low in this setting.

Currently, we are considering to design "targeted" intensification therapies for patients with poor prognosis features. These are either patients with an anticipated low CR rate or children with a high *MRD* signal prior to SCT. Thus, remission rates should be improved by more effective induction regimens. Furthermore, attempts will be made to improve the pre-transplant remission quality in order to reduce the relapse rate after SCT in children with a higher residual leukemic cell load prior to SCT. For these purposes, immunological approaches (antibodies) or the use of new drugs, e.g., novel purine nucleoside analogues may be used. However, such therapies should be the subject of controlled and prospective clinical trials.

MAMMOGRAPHY SCREENING OF BREAST CANCER: PROBLEMS OF ORGANIZATION AND ACTIVITY

Kirakosyan I.A, Madoyan I.B., Ovakimyan G.B., Hakobyan A.Kh., Mashyryan N.P.

Radiology Department, Armenian – American Wellness Center Yerevan, Armenia
E-mail: kirakosyani@yahoo.com

Keywords: breast cancer, screening mammography.

Introduction. Breast cancer is one of the major challenges found in Armenia since 1997. For the past 13 years the breast cancer reached the point of 52.4%. In 2000, there were only 678 cases detected; then in 2008 they grew up to 869. Nowadays, the most important issue is to effectively reduce the mortality rate of breast cancer, while the best way to reduce it, is to start diagnosing the disease at an early stage. If breast cancer is diagnosed at an nearly stage, the chance for survival is 90 to 95%, but at stage IV it is only 10%. It is essential that many of the patients find out their problems themselves. Thus, it is clear that the possibility of finding out the problem at the first stage and screening as a method of treatment do not have any alternatives.

Aim. Screening. What does the screening do by itself? First, it is a very sensitive and specific way of detection, less harmful for the patients' health, the equipment is easy to use, and the costs are reasonable as well. These advantages make mammographic screening the best modality to diagnose the cancer. The main result of mammographic screening is to reveal the size of palpable mass. It is important to know that screening mammography could be done each two years only for women of age 40 and above, because the risk factor in this age group is very high. In the 1980's the high rate of breast cancer was pointed not only in a number of patients, but also in a number of countries. Then after mammographic screening method gave a chance to improve diagnoses and also to treat women in different age groups, first of all in the Western economically advanced countries to reduce the mortality rate, then after to keep it at a low level. Screening mammography provides an opportunity to reduce the rate of mortality by 30% after 5-7 years, 20% after 15-20 years, and 20% after 15-20 years

just after using mammography screening. Involvement into mammography diagnostic screening may lead to reduce the mortality rate from the breast cancer in the control group.

From 1997 to 2008 at the Armenian –American Wellness Center in 3.878 patients were diagnosed (0.4% of them were at stage 0; 66.2% were at stage I-II; 23.5% were at stage III; 9,8% at stage IV. Five-year survival rate for stage I-II was 54.3% (reporting data of 2008).

For effective mammography screening, there is a need to have expert specialists who could interpret the images and give high quality reports regarding breast cancer. The interval follow-up observations were done in 12 of 22 patients between conventional screenings. False-positive and false-negative results of mammographic screenings were 5 to 25% and 10-25%, respectively. Mammography screening gives answers to numerous questions. Beside the financial problems, it is also important to encourage women actively and voluntarily participate in screening program, because we know that many women do not pay much attention to their health status. To motivate women to be involved in their personal health preservation is the main task of the health center.

Mammography screening consists of 3 main parts. The first one is to have polyclinics, which could give the proper health care services to the women. The second one is to have the screening-mammography room. The third one is to have the possibility to send the patient to an oncology center.

Results. From 1997 to 2008, at the Armenian –American Wellness Center 85,589 women were observed. In 60,034 (70.1%) women the breast cancer was diagnosed. The results were as follows: 15 (0.4%) were at stage 0; 611(15.8%) - at stage I; 1962 (50.6%) at stage II; 911 (23.5%) at stage III; 380 (9.8%) of patients were at stage IV. These results show that the frequency from the stages 0 up to II was 66.8%. It is noteworthy that 39,748 patients (46.4% of all patients) survived because of having benign lesions.

Conclusion. For early and accurate diagnosis of breast cancer it is necessary to provide a high quality screening mammography program, which needs high level of observation, high technical equipment, highly trained specialists and improving the awareness of breast cancer as well.

NEW LAPAROSCOPIC VAGINAL TECHNIQUE FOR RADICAL HYSTERECTOMY

Köhler C., Lanowska M., Oleszczuk A., Chiantera V., Schneider A.

Charité, Department of Gynecology and Gynecologic Oncology, Berlin, Germany
E-mail: chrithardt.koehler@charite.de

Keywords: radical hysterectomy, laparoscopy, cervical cancer, technical advance.

Objective. During the total laparoscopic radical hysterectomy or robotic radical hysterectomy the creation of an adequate vaginal cuff is often problematic. In addition, laparoscopic assisted radical vaginal hysterectomy is associated with a high rate of urologic complications.

Method. Between April 2007 and August 2009 ninety-two consecutive patients with cervical cancer stage IB1 or endometrial cancer stage II were operated by a new combined vaginal – laparoscopic approach. This technique consists of three steps: 1) laparoscopic staging; 2) creation of vaginal cuff; and 3) convetional laparoscopic or robotic radical parametrectomy. The technique was standardized and will be demonstrated step by step by graphs and intra-operative pictures.

Results. We analysed data from the first 34 patients. Mean age was 46 years, mean BMI 23.8. On average, 35 (20-53) tumor free lymph nodes were removed from the pelvis and the paraaortic region. Mean operation time was 342 minutes. Blood loss was 83 *cc* on average (50-150). No urologic complication occurred intraoperatively. One patient had to undergo re-laparoscopy because of a lost drainage.

Conclusion. The described new technique combines the advantages of total laparoscopic and laparoscopic assisted radical vaginal hysterectomy. During laparoscopic staging, including lymphadenectomy, the indication for radical hysterectomy will be proved. The vaginal part allows creating a tumor

adapted vaginal cuff and avoids any tumor cell contamination during the following surgery. The magnification effect of laparoscopy (conventional or robotic) allows a gentle dissection of the ureter and adequate resection of parametria.

LOCAL RECURRENCES OF RARE HISTOLOGICAL TYPES OF BREAST CANCER.

Kolyadina I.V.[1], Poddubnaya I.V.[1], Komov D.V.[2], Kerimov R.A.[2], Roschin E.M.[2] Makarenko N.P.[1]

RMAPE, Moscow, Russia (1)
RCRC RAMS, Moscow, Russia (2)
E-mail: irinakolyadina@yandex.ru

Keywords: breast cancer, recurrence, hystological charectiristics,

From 1990 to 2006 years in RSRC RAMS (Moscow) 116 patients with local recurrences of primary operable breast cancer were treated. Local recurrences were identical with histological structure of primary tumors, and were only one symptoms of the progressing disease. The most of patients (66%) had ductal cancinoma, lobular cancer had 20 %; mixed cancer had 8%, and only 6 % (7 patients) had rare histological types. Among them: tubular cancer in 4 cases, a medullar cancer - in 2 cases, in 1 case - a mucous cancer. All patients were 48 yeas older; 2 patients had 1 stage of disease; 3 patients - 2 stages; and 2 patients- 3 stages. Intraductal and lymphovascular invasion, multifocal tumors, high histological grade of tumours in all cases were absent. Lymph node involving was present in 3 cases, and absent in 4 cases. The receptor status of primary tumors was studied in 6 cases: 3 patients had receptor estrogen positive and 3 patients had receptor estrogen negative tumors.

Results. Local recurrences were found in period from 11month to 6 years after operation. Recurrences appeared most often in a surgical scar (6 patients), in chest wall only in 1 case; the size of tumors was under 3sm. All patients were operated (excision of recurrences), 2 patients had postoperative radial therapy, 1patient had chemotherapy and 1patient had endocrine therapy. The period of the observation was from 3 to 10 years: 3 patients died (progressing of disease), 4 patients are living now without progressing. The progressing of disease was arisen only in patients with the T2-size and receptor estrogen negative status of primary tumors, lymph node involving, with time of period recurrence appearing until 24 month after operations, and in patients who had only surgical treatment of recurrences without adjuvant therapy.

Conclusion: local recurrences of rare histological types of breast cancer meet in 6 % of cases. Patients with T2-size and estrogen negative status of primary tumours, lymph node involving, early period of the recurrence appearing (until 24 months) and only surgical treatment of recurrence have the worst prognosis for survival.

CLINICAL FORMS OF LOCAL RECURRENCES IN PATIENTS WITH PRIMARY OPERABLE BREAST CANCER.

Kolyadina I.V.[1],Poddubnaya I.V.[1], Komov D.V.[2], Makarenko N.P.[1], Kerimov R.A.[2], Roschin E.M.[2]

[1] Russian Medical Academy of Postgraduate Education, Moscow, Russia
[2] N.N. Blokhin RCRC RAMS, Moscow, Russia
E-mail: irinakolyadina@yandex.ru

Keywords: breast cancer, operative intervention, recurrence.

116 patients with primary operable breast cancer were radical treated at RCRC from 1990 to 2006. Within 4 to 120 months after surgery the patients had local recurrences as only symptoms of the disease progressed. Local recurrences were represented as solitary tumors in 85% of cases, in 15% of cases as forms with complications: infiltrations form in 2.2%, tumors with ulcer in 1.6%, cancer cyst in 2.2%, in 9% were mixed forms of breast cancer recurrence. Tumors with complications appeared in 60% of cases in time under 30 month after the operation (mastectomy or organ-conservative surgery), in 33.3% cases from 30 to 60 months after operation and only in 6.7% cases 60 months later from operations (p=0.04). If the size of the recurring tumor was under 2 sm, complications were rare (3.9%), recurrences from 2 to 5 sm had complication in 23.1% of cases. If a tumor was more 5 sm, complications were in 35.3% of cases (p=0.0002).

Recurrences with a localization in the breast chest wall had complications in 18.2% of patients, ipsilateral breast cancer recurrences had complications in 14.3% of patients and in 11.8% of cases in patients with recurrences in surgical scar areas ($p<0.05$). Recurrences with complications have construction invasive ductal carcinoma in 92.8 cases, lobular carcinoma in 7.2% cases. Mixed and rare types (medullar and mucous carcinoma) were only non-complication forms of breast cancer recurrences (p=0.02).

Conclusion: local recurrences with complications (infiltration, ulcer, cancer cyst and mixed forms) were found in 15% patients with primary operable breast cancer. Invasive ductal recurrence tumors more 5 sm, localized in the breast chest wall and early recurrence appear to have complications form most often.

NOVELL VIEW ON BARRETT'S ESOPHAGUS DIAGNOSTICS

Kuvshinov Yu., Ungiadze G., Pirogov S.

N.N. Blokhin's Russian Cancer Research Center of the Russian Academy of Medical Sciences (RAMS), Moscow, Russia

Keywords: Barrett's esophagus, esophagoscopy, diagnostics

Aim. To estimate the value of special endoscopic methods for Barrett's esophagus diagnostics and to develop the new approach to the use of their combination.

Materials and Methods. During 2006 – 2009, patients with endoscopic suspected Barrett's esophagus (n= 295) were examined by esophagoscopy at N.N. Blokhin's Russian Cancer Research Center of RAMS. We used chromoendoscopy, such as Lugol staining in 46 cases and methylene blue staining in 57 cases. New complex endoscopic method in Barrett's esophagus diagnostics was developed by us: instillation of 1.5% acetic acid combined with NBI (Narrow Band Imaging), 1.5x magnification and crystal violet staining. This approach was tested in 240 cases. All biopsy specimens were stained with alcian blue and Shiff base.

Results. We have analyzed results of our study and found that real Barrett's esophagus (type II – III metaplasia - colonic with goblet cells and squamous epithelium) was seen only in 42.3% endoscopic suspected esophageal precancerous metaplasia. In 28.5% cases the metaplastic changes were represented by gastric epithelium with type I metaplasia - intestinal. Moreover, 29.2% of specimens were gastric epithelium without any intestinal or colonic metaplasia and contained typical cardial glands. The diagnostic accuracy of Lugol staining in Barrett's esophagus diagnostics was poor and showed only 34%. Methylene blue staining lso should not be performed in this case: its sensitivity was only 25%, because of comparable values of stained and non-stained specimens with type II – III colonic metaplasia with goblet cells and squamous epithelium (real precancerous Barrett's esophagus). Developed complex esophagoscopy with NBI, acetic acid instillation, magnification, and crystal violet staining provided 88% accuracy. We estimated the architectonics of metaplased epithelium and, according to Sharma P. classification, marked out 4 types of mucosal patterns: villous, cerebral, oval and irregular. Using our method the villous pattern in 92% cases corresponded to type II – III colonic metaplasia. All specimens with the high-grade dysplasia and early adenocarcinoma were seen as an irregular-type pattern.

Conclusion. Complex esophagoscopy with NBI, acetic acid instillation, 1.5x magnification and crystal violet staining is a more accurate method in Barrett's esophagus diagnostics than traditionally used endoscopic methods.

THE FREQUENCY OF FIBROADENOMAS IN DIFFERENT AGE GROUPS

Mashuryan N.R.

Radiology Department, Armenian – American Wellness Center, Yerevan, Armenia
Tel.: (077) 47 85 99, (374-10) 58-39- 35

***Keywords**:* fibroadenoma (FIB), menstruation cycle, mammography, ultrasound.

Aim. The aim of this research was to find out the frequency of fibroadenomas (FIB) in different age groups.

Methods. Sonography and mammography films of 764 women's been observed by a single radiologist at Armenian-American Wellness Center from April to September 2009.

The average age group of was 41.8%+11.7 (15-74).

***Results*:** The results of research showed that the fibroadenomas frequency rate was 8.4% (n=64) of which 81.25% (n=84) diagnosed in women without any disorder in their menstrual function and only 18.75% (n=12) found in women with some disorders in menstrual functions. Fibroadenomas in size of < 2 *cm* were detected in 5.1% (n=39) occasions, while fibroadenomas in size of >2 *cm* could be seen in 3.3% (n=25). In the age group before 30 years FIB could be found in 42.2% (n=27) cases, but FIB < 2 cm could be seen in 17.2% (n=11) occasions, and in the same time FIB of size > 2 cm in 25% (n=16) occasions. In the 30 up to 40 years age group FIB could be found in 37.5% (n=24) occasions (size of < 2 cm is 20.3% (n=13). The other age group of women above 40 years old FIB was in 23.4% (n=15), of which in all cases fibroadenomas <2 cm were found.

It is of great interest to point out that FIBs are definitely higher in the age group of women above 40 ($p< 0.05$) and there is no big difference between the age group *before 30* and *from 30 up to 40* ($p>0.5$) .

Conclusion. The frequency of FIB is definitely higher for women in their 40's than older, but not that much different among women up to their 40.

CLINICAL AND MORPHOLOGICAL CHARACTERISTICS OF PRIMARY NON-HODGKIN'S THYROID GLAND LYMPHOMA

Sotnikova O.P.[1], Sorokin E.N. [2], Poddubskaya E.V. [2], Komov D.V. [2], Poddubnaya I.V. [1]

[1] Russian Medical Academy of Postgraduate Educcation, Moscow, Russia
[2] N.N. Blokhin's Russian Cancer Research Center of the Russian Academy of Medical Sciences (RAMS), Moscow, Russia

***Keywords*:** lymphoma, thyroid gland, clinical course, morphological characteristics

Primary thyroid lymphoma is a rare disease (2.5%-7% of all extranodal lymphomas). The aim of our review was determination of clinical and hystopathologic characteristics of this type lymphoma.

Materials and Methods. Since 1983 to 2007, 704 patients with primary extranodal non-Hodgkin's lymphomas were observed in RCRC of RAMS, 39 patients (5.5%) were affected by primary lymphoma of thyroid gland. Diagnosis was determined after hemythyreoidectomy or open biopsy of the tumor with the following immunohystochemical method of investigation.

Results. Median of observation was 60 months. Twenty-nine patients (74%) were female, 10 (26%) - male. Age at time of diagnosis ranged from 15 to 83 years (the median age - 51 years). Twenty-six patients (66.7%) were below 60. The association of Hashimoto's disease and lymphoma has been found in 4 cases of females (10.2%). Most patients (78%) presented for painless neck edema. Bulky disease was exposed in 50% of cases (21 patients). Predominant histological type was diffuse large B-cell lymphoma (DLBCL) – 14 (36%) cases; T-cell lymphoma was observed in 2 (5.1%),Burkitt lymphoma in 4 (10.2%), follicular – 1 (2,5%), other B-cell lymphoma -11 (28,2%), MALT type and mantle cell lymphoma – 1 (2.5%). In 5 cases histological type was not determined. IV stage of disease was constituted in 10 cases (25%). IE stage was determined in 11 cases (28%), IIE stage-in 13 (33%), IIIE - 13% clinical cases. Fourteen patients (36%) had B-symptoms. According to parameters of ECOG: 0-1 mark - 48%; 2 -23%; 3 -28%; 4 - were not observed. In accordance with parameters of International Prognostic Index 18 patients (46%) were in poor prognostic group and had high risk of progressive disease. Twenty-one (54.2%) patients had favourable prognosis. LDG level exceeding the normal index was in 29 cases. In 16 cases the level of Hb was.less 12 *g/l.*

***Conclusions*.** Predominantly lymphoma occurs in female population. Òwo thirds of patients were at the age below 60. Predominance histological type was diffuse large B-cell lymphoma (DLBCL).

According to parameters of ECOG, 0-1 mark was in 48% cases, and 54.2% patients had favourable prognosis.

PRIMARY BONE LYMPHOMA: CLINICAL, HISTOLOGICAL CHARACTERISTICS AND DEPENDENCE OF TOTAL RESPONSE AND FREQUENCY OF APPEARING RECURRENCE UPON METHODS OF TREATMENT

Sotnikova O.P.[1], Sorokin E.N. [2], Subortseva I.V. [1], Poddubskaya E.V. [2], Komov D.V. [2], Poddubnaya I.V. [1]

[1] Russian Medical Academy of Postgraduate Educcation, Moscow, Russia
[2] N.N. Blokhin's Russian Cancer Research Center of the Russian Academy of Medical Sciences (RAMS), Moscow, Russia

***Keywords*:** bone lymphoma, clinical course, histological characteristics, recurrence rate.

Lymphomas of bones are rare tumors. There are not many investigations about this problem in the world. The aims of our review were to study clinical, histological characteristics and determine the influence of treatment methods on efficacy.

***Materials and Methods*.** In Russian N.N. Blokhin Cancer Research Center 704 patients with primary extranodal non-Hodgkin's lymphomas were observed since 1983 to 2007**.** Primary lymphoma of bone was exposed in 90 clinical cases (12%). Diagnosis was determined after the open biopsy of tumors and following immunohystochemical examination.

Results. The predominant histological type was diffuse large B-cell lymphoma (DLBCL) – 42 (51%) cases. T-cell lymphoma in 3 (3.6%) cases and Burkitt lymphoma in 1 (1.2%) were significantly rare types. Other histological types included follicular – 25 (30.4%) and other lymphomas - 11 (13.4%). Involvement of more then two bones by non-Hodgkin's lymphoma constituted 38 cases (46.4%) and appropriated for IV stage of disease. IE stage was determined in 41 (50%), IIIE - in 3 (3.6%) clinical cases, patients with IIE stage were not observed. Forty-five patients were male, and 37 were female. Age at time of diagnosis ranged from 16 to 79 years (the median age of the patients was 41 years). According to parameters of International Prognostic Index (IPI) 62 patients (75.6%) were in poor prognostic group and had high risk of progressive disease; 20 (24.3%) patients had favourable prognosis. In accordance with treatment, all patients were distributed into 2 groups. In the first group there were 63 (76.8%) patients, who received polychemotherapy, from four to eight cycles: by antracyclins and other courses by alcylats or by radiochemotherapy. The second group consisted of 16 (19.5%) patients, who were treated by radiochemotherapy: the same types of chemotherapy and doses of radiotherapy from 30 to 50 *Gy* delivered in 14 to 25 fractions plus rituximab (Mabthera). In the first group complete response (CR) was in 23 (36.5%) cases, partial response (PR) in 27 (42.8%), and progressive disease (PD) in 13 cases (20.6%). Early appearing relapse (in the first 6 months) was in 20.6% (13 cases), late relapse made 38% (24 cases). The overall response rate (CR+PR) was 79.3%. The second cohort of patients: CR - in 6 (37.5%) cases, PR – 8 (50%), PD in 2 cases (12.5%). Early appearing recurrence was in one case (6.2%), late recurrence - in 2 (12.5%) cases. ORR was 87.5%.

***Conclusions*.** Patients, who received combination of chemotherapy and radiation therapy, have a favorable prognosis. The addition of rituximab to combination method decreases frequency of early and late recurrence appearing.

CLASSIFICATION AND BIOLOGY OF HODGKIN LYMPHOMA

Stein H.

Institute of Pathology Campus Benjamin Franklin Charité University, Berlin, Germany
Tel.: 84 445-0

Keywords: Hodgkin lymphoma, neoplasms, multiparameter approach, classification.

Over the past 50 years, we have witnessed explosive growth in the understanding of normal and neoplastic lymphoid cells. B-cell, T-cell and NK-cell neoplasms in many respects recapitulate normal stages of lymphoid cell differentiation and function, so that they can be to some extent classified according to the corresponding normal stage. Likewise, the molecular mechanisms involved the pathogenesis of lymphomas and lymphoid leukemias are often based on the physiology of the lymphoid cells, capitalizing on deregulated normal physiology by harnessing the promoters of genes essential for lymphocyte function. The clinical manifestations of lymphomas likewise reflect the normal function of lymphoid cells in vivo. The multiparameter approach to classification adopted by the WHO classification has been validated in international studies as being highly reproducible, and enhancing the interpretation of clinical and translational studies. In addition, accurate and precise classification of disease entities facilitates the discovery of the molecular basis of lymphoid neoplasms in the basic science laboratory. In the presentation an overview of the most recent version of the WHO classification will be given. The focus will be on the areas of the classification where significant and important changes are introduced and where new diagnostic criteria are established.

NERVE SPARING RADICAL HYSTERECTOMY: OUR EXPERIENCE

Stepanyan A., Asilbekyan G.

Department of Gynecology, “Shengavit” Medical Center, Yerevan, Armenia
E-mail: stepanyan.artem@gmail.com

Keywords: radical hysterectomy, nerve-sparing, bladder, recovery

Introduction. Radical hysterectomy remains to be the major approach of treatment for stage IA2-IIA cervical cancer. Providing a quite high disease free survival rate it is associated with several complications such as bladder and anorectal function impairment due to pelvic autonomic nerve system damage.

Nerve sparing technique respecting those structures allows decreasing the incidence of above noted complications.

Aim. The aim of study was assessment of safety and feasibility of nerve sparing radical hysterectomy (NSRH) and its impact on preservation of urinary bladder function.

Methods. Ten consecutive patients with FIGO stage IA2-IB1 cervical cancer underwent NSRH from June 2008 to May 2009 in our Department. As a control, data of 15 women who underwent classical type III radical hysterectomy (RH) in 2007 for the same diagnosis was used. As the assessment variables the operating time, intraoperative blood loss and the residual urine volume on the 5-th postoperative day were used.

Results The mean operative time in NSRH and RH group was 195±11.2180 and ±15.3 minutes, respectively (P=0.0012). Mean intraoperative blood loss in NSRH group was 370±40 *ml* and in RH group it was 358±54 ml (P=0.345). In patients of NSRH group indwelling catheter was removed on the 5-th day after the surgery. In 8 cases the volume of residual urine after spontaneous voiding did not exceed 100 *ml*. In 2 cases post voiding the urine volume was 120 and 150 *ml*, respectively. In both cases,

bladder function was recovered in 2 weeks of self-catheterization.

In RH patients indwelling catheter was left in place for 2 weeks and after its removal in 6 cases the volume of residual urine was more than 100 *ml*. In 4 of those 6 patients normalization of bladder function (residual urine less or equal to 100 *ml*) occurred in 2 weeks. In remaining 2 women the bladder contractility was recovered within 5 weeks after the surgery.

Conclusion. Despite of statistically significant prolonged operative time NSRH occurs to be a safe and feasible procedure with good functional results if compared with classical approach. A longer observation period and higher number of patients are required to assess its impact on survival rate.

ONE OF THE EFFECTIVE TREATMENTS OF APLASTIC ANEMIA

Zakharyan A.H.[1], Melkikyan N.A.[2]

[1] Department of Hematology, Yerevan State Medical University after M. Heratsi, Yerevan, Armenia
[2] Hematological Center after Prof. R.H. Yolyan, Yerevan, Armenia
Tel.: (+374 091) 55 51 49

***Keywords*:** aplastic anemia, immunosuppressive therapy, Cyclosporine A.

Introduction. Aplastic anemia (AA) is a severe blood disease, characterized with pancytopenia (reducing of erytrocytes, granulocytes, and platelets). The treatment of AA is an actual and difficult problem. The contemporary treatment modalities of AA are immunosuppressive therapy (Cyclosporine A, antilimphocyte (antithymocyte) globulin, glucocorticoids) and bone marrow transplantation.

Aim. To show the effective treatment of AA with Cyclosporine A - neoral.

Methods. In a period from 1996 to 2009 at the Hematological Center after Prof. R.H. Yolyan 73 patients with AA were diagnosed: 33 children and 40 adults. Anemia was the first symptom of disease. The key analyse methods was the trepanobyopsia in all cases.

The revealed characteristic features include markedly decreased cellularity with replacement by fat and progress to produce pancytopenia. In 84.8% of patients, the cause of AA is idiopathic. In 13.8% cases AA was a consequence of the virus hepatitis; in one patient it was a result of drugs (chloramphenicol).

Results. The comparative analysis on survival in patients showed that treatment of AA with Cyclosporine neural reduces mortality. The treatment efficacy was achieved in 74% cases vs. 50%.

Conclusion. The use of Cyclosporine in patients with AA might be a potential modality of treatment.