preparation, excision and postoperative therapy, and the postoperative scar was conformed to cosmetic requirements.

We'll present a case report.

Patient B., 16 years, consulted to the clinic of Chita State Academy of Medicine in December, 2014 concerning the psycho-emotional discomfort caused by a big keloid scar in the upper part of the right auricle. Anamnesis has established that the diagnosis "Congenital deformation of the right auricle (the sticking-out ears)" was 11 months ago in Ulan-Ude and cosmetic corrective operation has been performed. The postoperative period was complicated by inflammatory process, and healing of the wound finished with formation of the keloid scar. The objective research has noted painless cyanotic-brown color, dense consistence, 2.5x2.0 cm in size in the area of the upper part of right helix. Under its weight the upper part of right auricle was sunken and deformed. Diagnosis was "Keloid scar of the right auricle".

20 mg of Kenalog was injected in the keloid to the patient under infiltration anesthesia of 2.0 ml of 2% of Lidocaine solution. In 3 weeks the patient had partial softening of scar. The drug was injected 4 times with interval of 3-4 weeks (last injection was in May, 2015). As a result of the carried-out treatment the keloid became soft and elastic consistence and decreased in sizes (2.0 x 1.0 cm). As there was no regress of formation, the patient was carried out preoperative preparation with the subsequent excision of keloid scar. After its removal in the upper part of the auricle defect of soft tissues of 2.7 x 1.5 cm which was eliminated with local tissues according to Shymanovsky's plastic was formed. The postoperative period proceeded without complications. After removal of sutures, the patient was administered 10 sessions of phonophoresis with Contractubex ointment. Thin, soft whitish scar of 3 cm long is visible on the right auricle in 9 months after the carried-out complex treatment, the auricle form was reconstructed completely, and the patient has been satisfied with esthetic result.

**CONCLUSION**

The obtained data testified that therapy of the keloid scars, with a variety of methods of treatment, demanded an integrated and at the same time individual approach taking into account the sizes and duration of their existence. Moreover, the presented results showed that the most effective is the integrated approach consisting of pathogenetic reasonable methods of therapy and also once again confirmed opinion that the earlier treatment of young keloids was more successful.

**REFERENCES**

1. Anikin Ju.V. Kikorija N.G. Profilaktika i lechenie posleozhogovyh i posleoperacionnyh rubcov [Prevention and treatment of postburn and postoperative scars] Annaly plasticheskoj, rekonstruktivnoj i jesteticheskoj hirurgii [Annals of plastic, reconstructive and esthetic surgery]. 2004, №4, p. 35-36.

2. Bezrukov V.M. Robustova T.G. Rukovodstvo po hirurgicheskoj stomatologii i cheljustno-licevoj hirurgii [Guide to surgical stomatology and maxillofacial surgery]. Moscow: Medicina, 2000, V. 2, 488 p.

3. Belousov A.E. Rubcy kak global'naja problema plasticheskoj hirurgii [Scars as global problem of plastic surgery] Annaly plasticheskoj, rekonstruktivnoj i jesteticheskoj hirurgii [Annals of plastic, reconstructive and esthetic surgery]. 2004, №4, p. 41-42.

4. Pinelis I.S. Rubcy – odna iz osnovnyh problem hirurgii [Scars – one of the main problems of surgery] Zabajkal'skij medicinskij zhurnal [Transbaikal medical magazine]. 2013, №1, p.28-32.

5. Pinelis I.S. Keloidnye rubcy i ih lechenie [Keloid scars and their treatment]. [Ibid.], 2013, №2, p.51-55.

6. Pinelis I.S. Shirko O.I. Predoperacionnaja podgotovka bol'nyh, nuzhdajushhihsja v vosstanovitel'nyh operacijah cheljustno-licevoj oblasti [Preoperative preparation of the patients for recovery operations of maxillofacial area] Vestnik BGU. Medicina i farmacija, 2012, №2, p.60 -69.

7. Saidahmedov S.S. Babadzhanov A.S. Normahmatov B.T. Nekotorye voprosy mestno-plasticheskih operacij cheljustno-licevoj oblasti na razlichnyh jetapah ee okazanija [Some questions of local plastic surgeries of maxillofacial area at its various stages] Novoe v stomatologii [New in dentistry]. 2003, №8, p.46-48.

8. Shirko O.I. Pinelis I.S. Kershengol'c B.M. Primenenie Jepsorina u bol'nyh nuzhdajushhihsja v plasticheskih operacijah [Epsorin's use in patients for plastic surgery] Zabajkal'skij medicinskij vestnik [Transbaikal medical bulletin] . 2006, №3, p.7-11.

**The authors:**

1.Pinelis Iosif Semenovitch, PhD, professor, head of the department of surgical dentistry, Federal State-Funded Educational Institution of Higher Professional Education "Chita State Academy of Medicine", Chita, Russia, tel (83022) 315-918, E-mail: pinelis1@mail.ru;

2. Pinelis Yury Josephovitch, PhD, professor of department of surgical dentistry Federal State-Funded Educational Institution of Higher Professional Education "Chita State Academy of Medicine", Chita, Russia: tel (83022) 315-918, E-mail: pinelisml@mail.ru;

3. Ushnitsky I.D. MD, professor of department of therapeutic, surgical, orthopedic dentistry and dentistry of children's age of medical institute of the North-Eastern federal university named after M. K. Ammosov, Yakutsk, Russia, tel: 89241708940, E-mail: incadim@mail.ru.

E.V. Bashirov, N.I. Duglas

# LAPAROSCOPIC UTERINE ARTERY OCCLUSION AS A STAGE OF EFFECTIVE UTERINE FIBROIDS TREATMENT TECHNOLOGY

**ABSTRACT**

Compared to separate laparoscopic myomectomy, its combination with uterine arteries (UA) occlusion reduces the duration of the intervention, intraoperative blood loss and adverse clinical symptoms among 93.7% of women. It also has low myoma growth recurrence rate (during 12 months' observation period – just 3.0%).

High therapeutic effectiveness of UA laparoscopic occlusion consists of good knowledge of the basics of angiology, having manipulative skills, adequate perioperative management and complex rehabilitation after surgery.

**Keywords:** uterine fibroids, laparoscopic occlusion of uterine arteries.

**INTRODICTION**

Deterioration of women's reproductive health, risk of fertility loss among the nulliparous connected with the presence of uterus benign tumors, the cases of uterine fibroids recurrence after organ interventions – these are some aspects drawing attention to the urgency of dealing with this disease, which is a heavy burden not only for women, but also for the society as a whole.

Due to the significant breakthrough in uterine fibroids (UF) treatment technology, the priority of radical hysterectomy with an insolvent slogan "no uterus - no problem" was replaced by the introduction of organ-saving endoscopic and endovascular interventions. Nevertheless, data on the benefits of each of the above-mentioned methods still remain controversial.

Problems of modern reproductive surgery lie in the absence of clear ideas about expedient selection criteria, indications and contraindications, long-term results to justify choosing of a certain treatment technology for women with UF. Data on fertility after myomectomy, frequency of complications and relapses prove to be too variable.

Laparoscopic access, despite its undoubted advantages, remains a modern challenge for surgeons – in terms of the need to improve reconstructive and plastic surgery techniques and limitations of intraoperative blood loss. With laparoscopic myomectomy (LM), a serious and frequent complication is uncontrolled bleeding, ways to overcome it being studied. Blood loss reduction is extremely important to minimize negative thermal effects on the myometrium, especially for patients who are interested in preserving their reproductive function.

However, temporary ligation or clipping of internal iliac and uterine arteries (UA), followed by the removal of "stricture" involve a number of drawbacks: these methods are long, technically complex and may lead to massive intra-abdominal bleeding. Need for surgery in the ureters projection increases the risk of injury to the ureter with related complications.

UAE and LUAO are reported to reduce menstrual bleeding and the volume of uterine fibroids in general. The data on comparability of the results of both methods require additional studies owing to small sample of patients. Temporary occlusion of uterine vessels, which effectively reduces the risk of blood loss, is considered to be a perspective way of UF treatment without any systemic side effects. However, the existence of other, less favorable long-term results after LUAO proves the need for further studies to introduce alternative methods of UF treatment.

The objective of the study: to compare the effectiveness of separate laparoscopic myomectomy and with the stage of occlusion of the ascending UA branches among patients of reproductive age with UF.

**MATERIALS AND METHODS**

To achieve the above-mentioned objectives a prospective study was conducted, including 40 women with UF who were examined on clinical bases of the Department of Obstetrics, Gynecology and Perinatology, Kuban State Medical University in 2014-2015 and provided with high-tech medical care.

Depending on the UF technology treatment women were divided into two groups: group I included patients with LM (n = 20), group II – with a combination of LM and LUAO (n = 20) for reducing intraoperative blood loss.

LM was held traditionally, involving the following steps: serosa and myometrium cutting above the node in its outermost part and as distantly as possible from appendages and vascular bundles; myoma node husking without a pseudocapsule by rigid fixation and unit traction with ten-millimeter volsella and gradual myometrium removal from the node. It was followed by bleeding vessels spot coagulation with the help of bipolar coagulation, postoperative defect suturing with individual sero-muscular sutures gripping the bottom of the wound for the prevention of myometrium hematomas and the formation of a well-fixed scar, with extracorporeal node tying, and removing the remote myoma node from the abdomen by morcellation in an airtight container.

Occlusion of the ascending UA branches on both sides was carried out by forming a «window» in the avascular zone of broad ligament 1-1.5. This procedure can reduce, but not completely restrict the blood flow to the body of the uterus, which was proved during the ultrasound with color Doppler in postoperative period. The advantages of this method include simplicity, rapidity (occlusion of the ascending UA branches on both sides takes 3-5 minutes), and safety.

The age of patients ranged from 25 to 40 years old. All women were examined in connection with infertility during different periods in accordance with generally accepted standards; significant deviations from the standard indicators haven't been identified.

The study inclusion criteria: the presence of single subserous interstitial fibroids sized from 5 to 7 cm.

The following procedures were performed intraoperatively before myomectomy: adhesiolysis, salpingostomy, destruction of endometrioid heterotopias in the pelvic peritoneum and ovaries, checking tubal patency, mobilization and restoration of pelvic organs normal anatomy.

Patients' follow-up after the surgery was 12 months.

Statistical processing of the results was performed using the statistical software package Statistica v.6.0. The level of statistical significance was adopted $p < 0.05$.

**RESULTS AND DISCUSSION**

While carrying out the comparative analysis of LM and its combination with LUAO the duration of the operation and the amount of intraoperative blood loss were taken into consideration. The duration of the operation includes the time spent directly on myomectomy.

The main criteria for the effectiveness of organ-saving surgical treatment were the following: the elimination of clinical symptoms (poly- and dysmenorrhea), the reduction in the uterus volume based on gynecological examinations and a transvaginal ultrasound scan. Two treatment groups under the study corresponded to each other in age, time of uterine fibroids having and structure of clinical symptoms. The average age of women in group I was 35,6 ± 1,8 years, in group II - 33,8 ± 1,4 years, with no significant age differences between groups ($p > 0,05$). The number of women with node size up to 5 cm (32% and 40%) and larger (5-7 cm) (78% and 60%) wasn't significantly variable in these groups.

Myomectomy duration in group I ranged from 30 to 85 min., on average – 55 min., in group II – from 30 to 65 min., on average - 45 min. The longer surgery duration in group I can be explained by the need to achieve hemostasis by additional coagulation and additional sutures, especially on larger sites.

The average amount of intraoperative blood loss in LUAO was significantly less than among women in the group with separate LM (79,5 ± 17,8 and 120,5 ± 26,7 ml, respectively) – by half. The essential difference of the studied parameters in these two groups indicated that LUAO can effectively reduce blood loss during the surgery.

In neither case intraoperative injuries of vessels, nerves or ureters occurred, so laparotomy and blood transfusions weren't needed. It is the technical skill of

the surgeon that is known to determine the duration of the operation, and it can differ significantly among doctors-beginners and experts. Running a successful UA laparoscopic occlusion requires basic knowledge of angiology and manual skills of proper occlusion and blood vessels clipping, so operations of this kind are the prerogative of institutions with qualified specialists in this sphere.

The postoperative period was uneventful; therefore all women were discharged after sutures removal in satisfactory condition five days later.

The study of early and late results of UF endosurgical treatment showed a decrease in the volume of menstrual blood loss, severe pain syndrome in the abdomen and in the lumbar area among patients of both groups.

Menstrual blood loss reduction and therapeutic effectiveness against menometrorrhagias were observed among 91.8% of women after LM and 93.7% - after LUAO. The relief of UF symptoms and a satisfactory feeling after the intervention were noticed among all patients within 9 months' observation.

The frequency of UF recurrence after LM and its combination with LUAO was 4.7% and 3.0% respectively during the observation period.

**CONCLUSIONS**

The prospects of using laparoscopic occlusion of ascending UA branches as a step prior to myomectomy, aimed at reducing intraoperative blood loss and being an effective alternative to hysterectomy for symptomatic UF treatment are obvious. Performed technically proper, this manipulation is safe, allows better visualization, minimizes the negative thermal effect on the myometrium, thereby increases the probability of well-fixed uterine scar formation, which is important for patients with infertility and those being interested in women's reproductive function implementation. The above-discussed technique reduces the duration of the operation, diminishes the possibility of intraoperative and postoperative complications, therefore leads to hospital stay reduction, decreases medical support (including anesthetic) and the rehabilitation period.

**REFERENCES**

1. Dubuisson J. The role of preventive uterine artery occlusion during laparoscopic myomectomy: a review of the literature / J. Dubuisson, L. Ramyead, I. Streuli // Arch Gynecol Obstet. – 2015. – V. 291. – N 4. – P.737–P. 43.

2. Istre O. Management of symptomatic fibroids: conservative surgical treatment modalities other than abdominal or laparoscopic myomectomy / O. Istre // Best Pract Res Clin Obstet Gynaecol. – 2008. – V. 22. – N 4. – P.735–47.

3. Nonsurgical Alternatives for Uterine Fibroids / E. Zupi, G. Centini, L. Sabbioni, [et al.] // Best Pract Res Clin Obstet Gynaecol. – 2015. – pii: S1521-6934(15)00227-8.

4. Symptomatic myoma treated with laparoscopic uterine vessel occlusion and subsequent immediate myomectomy: which is the optimal surgical approach? / P.H. Wang, W.M. Liu, J.L. Fuh, [et al.] // Fertil Steril. – 2009. – V.92. – N 2. – P.762–9.

5. Transient occlusion of uterine arteries in laparoscopic uterine surgery / Y.S. Kwon, H.J. Roh, J.W. Ahn, [et al.] // JSLS. – 2015. – V.19. – N 1. – e2014.00189.

**The authors:**

Bashirov Eduard Vladimirovich – MD, Fundamental obstetric-gynecological clinic of Kuban state medical university of Russian federation healthcare department, Russia, 350072, Krasnodar, Zipovskaya street 4/1; Тел. 8(988)2425536, факс 8(861)2570509, edikbashirov@rambler.ru;

Duglas Natalia Ivanovna - obstetrician-gynecologist, MD, Head of the Department of Ostetric and Gynecology Faculty of Postgraduate Training for Medical Institute Doctors « M.K. Ammosov North- Eastern Federal University, 8924662 67 22, E-mail: nduglas@yandex.ru.

## HEALTHCARE, MEDICAL SCIENCE AND EDUCATION ORGANIZATION

L.F. Timofeev

# PRIMARY MORBIDITY OF THE REPUBLIC SAKHA (YAKUTIA) IN 2013-2014

**ABSTRACT**

The paper reports the analysis of the primary morbidity of the population of the Republic Sakha (Yakutia) in 2013-14 on the basis of Russian Ministry of Health statistical reports. High levels of primary morbidity in 2013-2014 were observed in such class of diseases as diseases of the nervous system, the eye and adnexa, respiratory and digestive system, skin and subcutaneous tissue; diseases of the blood and blood-forming organs, musculoskeletal system and connective tissue of the urogenital system were above average level. It also turns out that from the 113 species of the considered pathologies high and higher than average incidence rates in the country are found in 69 species, low and below average levels – in 19.

**Keywords:** primary morbidity, the incidence of diseases by classes, an incidence of certain types of pathologies.

**INTRODUCTION**

It is known that the disease is one of the criteria of public health, and morbidity data are the basis for planning in health care. On the basis of these data, it is planned volume of necessary medical assistance to the population, number of beds, staff and other resources for health. Incidence – is the prevalence of disease in the population or its individual groups is determined by identifying and recording the number of cases of the disease when treatment in medical institutions (or dispensary and preventive examinations) during the year. Primary morbidity registered in establishing the diagnosis, the patient for the first time in my life.

**MATERIAL AND METHODS**

We analyzed the primary morbidity of the population of the Republic of Sakha (Yakutia) in 2013-14 on the basis of statistical reports of the Russian Federation Ministry of Health [1].

For the analysis of morbidity data used percentile (centile) method, according to which the subjects of the federation with the performance to the 10 th percentile is the territory with a low level of an indicator, from 10 to 25 th percentile – a level lower than the average, from 75 to 90 th – over and above the average 90th percentile – high level. Obviously, the indicators lie in the range from 25 to 75 th percentile (or the other - 25 and 75 quartiles (Q25-Q75) distribution),