2. Laparoscopy in colorectal cancer surgery is an alternative to traditional operations and can be made in adequate volume.

3. Laparoscopic intervention in colorectal cancer patients reduce length of stay in hospital and in the manual mode of anastomosis formation are more expedient economically.

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COMPARATIVE CHARACTERISTICS OF THE EFFECTIVENESS OF VARIOUS METHODS OF SURGICAL AND CONSERVATIVE TREATMENT OF ECTOPIC PREGNANCY

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СРАВНИТЕЛЬНАЯ ХАРАКТЕРИСТИКА ЭФФЕКТИВНОСТИ РАЗЛИЧНЫХ МЕТОДОВ ОПЕРАТИВНОГО И КОНСЕРВАТИВНОГО ЛЕЧЕНИЯ ВНЕМАТОЧНОЙ БЕРЕМЕННОСТИ

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Изучены 166 историй болезней пациентов с внематочной беременностью. Исследована эффективность различных методов оперативного и консервативного лечения внематочной беременности. Полученные результаты убедительно свидетельствуют о преимуществе применения по показаниям лапароскопического доступа при лечении нарушенной трубной беременности, что позволяет рекомендовать его как метод выбора. Метод консервативного лечения прогрессирующей трубной беременности с использованием метотрексата позволяет сохранить анатомическую и функциональную целостность маточной трубы в 72,5 % случаев.

Ключевые слова: внематочная беременность, метотрексат, консервативное и оперативное лечение.

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COMPARATIVE CHARACTERISTICS OF THE EFFECTIVENESS OF VARIOUS METHODS OF SURGICAL AND CONSERVATIVE TREATMENT OF ECTOPIC PREGNANCY

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166 patient records with an ectopic pregnancy were studied. The effectiveness of different operative and conservative methods of ectopic pregnancy treatment was investigated. These results clearly demonstrate the superiority of laparoscopic access by indications in ectopic pregnancy treatment, which can be recommended as a choice method.

Method of conservative treatment of advanced tubal pregnancy with methotrexate preserves the anatomical and functional integrity of the uterine tube in 72.5% of cases.

Key words: ectopic pregnancy, methotrexate, conservative and operative treatment.

Ectopic pregnancy is characterized by abnormal implantation of fertilized egg outside the uterus. The name “ectopic pregnancy” came from the Greek words “inappropriate”, “not in place”.

The studied pathology still remains valid. From 6 to 10% of women patients enter the gynaecological hospital with a diagnosis of “suspected ectopic pregnancy”. This pathology is one of a major cause of intra-abdominal bleeding; every 4th or 5th woman patient has repeated ectopic pregnancy every 5th or 6th woman — adhesive process in the pelvis and abdominal cavity in 75% of women after salpingectomy because of ectopic pregnancy secondary infertility develops.

Despite of significant achievements in modern gynaecology, which help to improve diagnosis and timely treatment, ectopic pregnancy continues to be one of severe pathologies. There is no single conception of examination and treatment of the patients with suspected ectopic pregnancy. The reason for ectopic pregnancy is multi-factorial, because of which the implanted fertile egg develops outside the uterus.

Pathological localization of the fertilized egg and its development cause intensive blood supply at the implantation place. Only the uterus during the growing of the fertilized egg is designated to ensure optimal life activity of the fetus. With the progression of ectopic pregnancy there arises a risk of rupture of the fallopian tube, massive bleeding, which sometimes leads to the woman’s death.

According to various authors, ectopic pregnancy is one of the leading causes of death related to pregnancy during the first trimester and is 0.2–0.11%. According to the ICD-10 classification there are distinguished the following kinds of ectopic pregnancy by the course, i.e. progressive and impaired (by type of tubal abortion, rupture of the uterine tube).

The aim of our study is to evaluate the effectiveness of different methods of operative and conservative therapy by ectopic pregnancy.

Materials and Methods

We conducted a retrospective study of 224 treatment results of the patients with ectopic pregnancy during the period from 2009 to 2011 in the gynaecological department of Ternopil City Hospital N 2. The share of the operative therapy because of ectopic pregnancy for the last 3 years amounts to (16.5+0.5)%.

The most frequent localization of ectopic pregnancy is fallopian tubes (95–98%).

For the analyzed period 166 women had operative therapy. 58 patients were treated conservatively (methotrexate).

All the examined women patients, depending on the method of treatment, were divided into 3 groups.

The group I included 114 (50.4%) of the patients, who underwent operative therapy with laparotomic approach. Laparotomy was performed in all cases, when the volume of blood loss exceeded 400.0–800.0 ml. In these situations, this method was optimal because of the widest possible access into the abdominal cavity to the source of bleeding and reduction of preparation time for the surgery. The average age of women was (26.24±3.12) years. The group II included 52 (23.0%) of the patients, who underwent operative therapy with laparoscopic approach. The average age of the patients in this group was (24.76±1.26) years. Laparoscopic treatment of tubal pregnancy was conducted with absence of contraindications: severe condition of the woman patient because of hemorrhagic shock, adhesive process in the abdominal cavity, size of fertilized eggs up to 3.5 cm and interstitial pregnancy. The group III included 58 (25.6%) of the patients who were undergone conservative therapy with methotrexate under the order of the Ministry of Health of Ukraine N 676 of 31.12.2004. The average age of women in this group was (23.24±3.12) years.

Both methods of operative therapy of compromised tubal pregnancy consisted in unilateral salpingectomy, which made 69.8% of the total number of surgeries, and in 30.2% of cases organ preserving surgeries on the tube, where the fertilized egg was implanted, were performed.

Performing organ preserving surgery in ectopic pregnancy is accompanied by risk of postoperative persistence of tropho-

blast as a result of its incomplete removal from the fallopian tube and abdominal cavity. The most effective method of preventing this complication was careful toilet of the abdomen cavity with 2–3 l of physiological saline and a single dose of methotrexate of 75–100 mg IM during the first or the second day after surgery.

Methotrexate is a folic acid antagonist that inhibits trophoblast cells proliferation.

Pharmaceutical treatment with methotrexate was used by the women patients with stable hemodynamics and clinic of "acute abdomen" absence by the uterine tube diameter less than 3 cm, chronic gonadotropine levels less than 5000 mIU/ml, absence of the signs of compromised ectopic pregnancy, possibility of echographic and laboratory (chorionic gonadotropine level) control, absence of pathological changes of hematological parameters.

Methotrexate was administered 75–100 mg i/m, after methotrexate there was monitored administration level of β-chorionic gonadotropine, which was stopped by concentrations achievement of 15 mIU/ml, what was observed, on the average, in a month. A characteristic feature was concentration increase of β-chorionic gonadotropine level during the first days after injection of methotrexate, due to destruction of trophoblast cells and admission of chorionic gonadotropine into blood in larger quantities. During the 4th–5th day the level of β-chorionic gonadotropine reached its maximum and then began to decline and achieved the initial line at the 7th–8th day. Mandatory determination of β-chorionic gonadotropine was conducted at the 4th and the 7th days after the methotrexate injection. If the concentration of β-chorionic gonadotropine as at the 7th days was less than the initial or decreased by more than 15% of the maximum concentration (as at the 4th day), weekly control of β-chorionic gonadotropine was still held until "negative" results achievement, i.e. < 15 mIU/ml. If the concentration of β-chorionic gonadotropine at the 7th day was higher than the initial or decreased to less than 15% of the maximum concentration, repeated administration of methotrexate was carried out.

Side effects of methotrexate are associated with depression of bone and cerebral blood formation, toxic effects on the mucous membranes, liver and lungs. During ectopic pregnancy therapy with methotrexate, complications are extremely rare and are nearly absent after a single dose. The probability of their occurrence may be increased by presence of serious pathology of the internal organs, which is to be taken into account while determining the therapy method in such patients. Absolute contraindications for methotrexate were anemia, leukopenia, thrombocytopenia (< 100 thousand/mole), renal and liver failure; acute infectious diseases that cause immunoinhibition, AIDS; gastric ulcer and duodenal ulcer, ulcerative colitis. In addition, during treatment with methotrexate one should refuse medications that increase its side effects. These medications include aspirin, nonsteroidal anti-inflammatory drugs, sulfonamides, tetracycline, laevomycetin, aminobenzoic acid.

Treatment Results and Their Discussion

The results showed that during surgery intraperitoneal bleeding 501.0–700.0 ml was mostly often found (43.6±2.2)% of cases. In (42.9±4.2)% of cases the volume of intraperitoneal bleeding was less than 500.0 ml, and massive bleeding was registered only in (13.7±2.2)% of cases. Restoration of blood volume was performed using macromolecular plasma succenturiate solutions and fresh frozen plasma for blood loss of more than 900.0–1000.0 ml (Table 1).

Evaluating the effectiveness of treatment with laparoscopic access (20 patients) was conducted in comparison with the group of women (20 patients) who underwent laparotomy. The main criterion for selection of the patients in the studied groups were volume of blood loss up to 500.0–600.0 ml to unify its impact on the severity of the woman health condition and postoperative period. Compared with the patients who underwent laparotomy, significant reduction of duration of laparoscopic surgeries by 32.9% ($p<0.05$), reduction of analgesics usage term in the postoperative period 2.7 times ($p<0.05$) and reduction of bed rest period by 12–14 hours were determined, subfebrility was rarely recorded ($p<0.05$). The results clearly show the advantage of applying laparoscopic access by indications in treatment of tu-

Table 1

Long-term Results of Ectopic Pregnancy Treatment

Method of surgery	Groups of patients		
	Laparotomic access	Laparoscopic access	Conservative treatment
Total	35 (52.7%)	19 (30.9%)	15 (27.2%) Operative therapy 7 (45%)
Tubectomy	34 (95.1%)	12 (62.4%)	4 (34.7%)
Reconstructive and plastic surgeries	1 (5.7%)	9 (48.5%)	3 (25.7%)

bal pregnancy, and can be recommended as a method of choice.

According to the literature data, the long-term results of ectopic pregnancy treatment cannot be considered as favourable.

Study of cases of organs preserving surgery with ectopic pregnancy showed that following uterine pregnancy occured in 54% and repeated ectopic one — in 13% of women; 25–35% of women were infertile.

According to the literature, the fallopian tubes after use of methotrexate remain passable in 71–81% of women.

This scope of statistics depends on the clinical course of ectopic pregnancy (the nature of the damaged uterus or elsewhere and the stage of blood loss), the volume and technique of surgical treatment, the completeness and duration of rehabilitation in the postoperative period.

Conclusions

The proposed therapy scheme results showed advantages of surgical laparoscopy versus laparotomy with ectopic pregnancy, what was reflected in the maximal visualization of the pelvic organs with minimal access, reduction surgery duration ($p<0.05$), early mobilization of women ($p<0.05$), small septic risk, insignificant use of medications and lower economic cost for treatment by 1.4 times, reduction of scar changes at the anterior abdominal wall, better cosmetic effect.

The method of conservative treatment of progressive tubal pregnancy with methotrexate IM by the scheme provides effective resorption of the fertilized egg with the small side effects; helps preserve anatomical and functional integrity of the fallopian tubes by 72.5% of cases.

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MANAGEMENT AND ENDOSURGICAL TREATMENT OF BENIGN OVARIAN CYSTIC FORMATIONS IN PREGNANCY

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ТАКТИКА ВЕДЕНИЯ И ЭНДОХИРУРГИЧЕСКОЕ ЛЕЧЕНИЕ ДОБРОКАЧЕСТВЕННЫХ КИСТОЗНЫХ ОБРАЗОВАНИЙ ЯИЧНИКОВ У БЕРЕМЕННЫХ

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В работе рассмотрены вопросы дифференциальной диагностики доброкачественных кистозных овариальных образований во время беременности, оценки показаний для оперативного вмешательства, разработки соответствующей тактики ведения и выбора хирургического доступа при выполнении вмешательств.