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Research Article

Comparison of Laparotomy and Laparoscopic Surgery for Ectopic Pregnancy at High Altitude

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Abstract: In this paper, by comparing the clinical effects of laparotomy and laparoscopy on the recovery of ectopic pregnancy, 70 patients with ectopic pregnancy in the people's Hospital of Tibet Autonomous region from April 2017 to April 2019 were selected as the control group who received laparotomy. 35 patients in each group were treated by laparoscopy to compare the recovery of the two groups. To solve the problem of which method of operation for ectopic pregnancy in plateau area is better, and to promote the operation for better recovery of patients in the future.

Key words: Laparoscopy; Laparotomy; Ectopic pregnancy

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1 Introduction

This area is located in the high-altitude area above 3000 m above sea level, and the oxygen content is lower than that in the plain. The most common ectopic pregnancies in our hospital are tubal pregnancy and vitiligo pregnancy. By comparing the results of laparotomy and laparoscopic surgery for ectopic pregnancy at high altitude, we can improve the self-protection consciousness of Tibetan women, make more families away from pain, and make sick women get better treatment. choose a more suitable way of operation, so that the quality of life and health level have been improved.

2 Materials and methods

2.1 Basic data

The age of the observation group was 20-45 years old, and the average age was (28.55 plus or 3.20). The average age of the control group was 22-44 years old, and the average age of the control group was (27.44 plus or minus 3.56). There was no significant difference in the general data between the two groups (P>0.05). They all lived in Tibet Autonomous region for a long time and can be compared.

2.2 Method

Operation method: the control group was treated with laparotomy, the patient was anesthetized, the incision from 5 to 8cm was taken from the lower abdomen of the patient, the pregnancy site was identified, the focus or fallopian tube was removed, the abdominal cavity and pelvic cavity were washed after operation, and the incision was closed.

The study group carried out the related treatment of laparoscopic surgery, anesthetized the patients, examined the fallopian tube and pelvic cavity, identified the pregnancy site of the fallopian tube, created an operating hole in the patient's lower abdomen, and then carried out related operations. Local electrocoagulation to stop bleeding to prevent too many injuries. After hemostasis, the pelvic cavity is explored to separate the sites containing adhesions. After operation, both groups were treated with antibiotics.

2.3 Statistical methods

With the help of SPSS25.0 software to study the

available data, the standard deviation plus average method ($\bar{x} \pm s$) is used to represent the measurement data, the t-test is used, the counting data rate is expressed as %, and the chi-square test is accepted. When $P < 0.05$, it is suggested that the difference in the data is statistically significant.

2.4 Observation indicators

The specific conditions of the two groups were compared.

3 Results

By comparison, the laparoscopy group is better than the laparotomy group (Table 1-2).

Table 1. Comparison of operation time, exhaust time, hospital stay, intraoperative blood loss and postoperative visits between the two groups

Group	*N*	Operation time (min)	Exhaust time (h)	Hospitalization time (d)	Intraoperative bleeding volume (ml)
Research group	35	80.35±3.23	35.22±2.45	5.30±0.65	120±3.55
Control group	35	120.33±2.33	55.30±2.30	7.55±0.45	260±2.22
P				<0.05	

Table 2. The incidence of adverse reactions was compared between the two groups

Group	*n*	Incision infection	Intestinal obstruction	Tubal patency rate
Research group	35	1	1	85.71 (30)
Control group	35	6	4	71.42 (25)
χ^2		3.97	1.94	2.12
P			<0.05	

4 Discussion

Laparoscopic surgery takes less time and less trauma, and patients recover more quickly after surgery, mainly because in the specific treatment of laparoscopy, only operating holes need to be created, no incisions are required, and the wound is smaller. it can promote further recovery after operation. And exploring the focus of laparoscopy can reduce the damage to nearby organs, further prevent the adverse effects of gauze, gloves, air and other factors, reduce the risk of abdominal adhesion and infection, and further reduce bleeding, reduce the difficulty of operation and shorten the time of operation. The operation time of the study group is about 80 minutes, which is significantly better than that of the control group (120 minutes). The shorter the operation time, the more conducive to postoperative recovery and avoid the occurrence of surgical complications. Exhaust time is also very important for patients. It can be judged whether there is intestinal obstruction. The postoperative hospital stay of the patients in the study group is less than that in the control group, which is beneficial to the family economy or the physical and mental health of the patients. The effect of laparoscopy is better than that of laparotomy, indicating that laparoscopic surgery brings less trauma and contributes to the recovery of patients after operation. Under the guidance of laparoscopy, the condition of abdominal cavity can be observed clearly and unnecessary injury can be reduced. With the maturity of laparoscopic technology, the updating and upgrading of endoscopic instruments and the improvement of minimally invasive surgery techniques of clinicians, the surgical methods of ectopic pregnancy can be inclined to laparoscopy. For Tibetan women, some pastoral women have a low level of education, do not know what is ectopic pregnancy, abdominal pain and vaginal bleeding do not care, the condition is serious when they come to the hospital. Some patients often have no obvious symptoms before abortion or rupture, but severe abdominal pain and vaginal bleeding eventually lead to fallopian tube rupture. Untimely treatment can endanger life and safety. The results show that laparoscopy has less trauma and less damage to the fallopian tubes of young women with fertility requirements, which is beneficial to re-pregnancy. Secondly, the infection rate of endoscopy is lower than that of laparotomy, and postoperative infection may cause pelvic inflammation and tubal adhesion, which is prone to re-ectopic pregnancy and affect re-pregnancy. Whether the incision infection is that patients and their families can directly feel the result of this operation is good or bad. if the wound infection will make the patient suffer another kind of torture besides ectopic pregnancy, the laparoscopic wound is small, this study laparoscopic infection is only one

person, based on the limited medical environment in the hospital, some patients cannot have a good rest, and recover quickly after operation. Going home as soon as possible can ensure the quality of life of the patients in order to facilitate the second pregnancy.

In the past, laparotomy was often used, when laparotomy, through looking directly at the lesion site, but the trauma was greater during laparotomy, and there was more bleeding during the operation. The patients with great impact on the body have slow postoperative recovery, long hospital stay and high risk of complications. In addition, the scope of operation during laparotomy is limited, and bleeding will affect the event horizon, resulting in poor resection of deep embryonic tissue and affecting the recanalization effect of fallopian tube. In addition, the surgical incision is larger during laparotomy, which is easy to form scar after operation, which affects beauty and patient satisfaction. Under the guidance of laparoscopy, the condition of abdominal cavity can be observed clearly and unnecessary injury can be reduced. Laparoscopic surgery is a new type of minimally invasive surgery. In recent years, laparoscopic technology has developed rapidly. In laparoscopic surgery, the TV picture magnifies the fallopian tube. It is beneficial to the progress of the operation. In postoperative nursing, we should pay attention to the psychological changes of patients. Some patients think that they are incomplete after surgery and feel that their pregnancy rate has dropped by 50%. The study found that the recanalization rate of fallopian tubes after laparoscopy in our hospital was 85.71%. The recanalization rate of fallopian tubes after laparotomy was 71.42%. It is more beneficial for patients to get pregnant again after operation. By comparing the advantages and disadvantages of surgical methods, we can better help patients to choose suitable surgical methods, which is beneficial to patients. In the future work, we should strengthen the health knowledge education of patients, popularize the knowledge of obstetrics and gynecology, and try to make Tibetan women change their sanitary conditions and medical consciousness in order to better protect women.

References

[1] Jiang XQ, Zhao H, Xu LF, et al. Clinical effect analysis and safety evaluation of laparoscopic surgery and laparotomy in the treatment of ectopic pregnancy [J]. Zhejiang Department of Trauma surgery, 2015, 20 (5): 1017-1018.

[2] Cao YL, Yuan BX. Comparison of the efficacy of different methods in the treatment of ectopic pregnancy[J]. Journal of Ningxia Medical University, 2015, 37(10): 1240-1241.

[3] Beam XM. Analysis of the efficacy of two surgical methods in the treatment of ectopic pregnancy and their influence on the postoperative pregnancy rate [J]. Laboratory Medicine and Clinic, 2016, 13(10): 1406-1408.

[4] Luo Y. comparative analysis of clinical efficacy of laparoscopy and laparotomy in the treatment of ectopic pregnancy [J]. Modern diagnosis and treatment, 2015, 10 (7): 148-149.

[5] Yang MJ. Comparison of clinical efficacy of laparoscopic surgery and traditional laparotomy in the treatment of ectopic pregnancy [J]. Contemporary Medicine, 2015, 23 (6): 94-95.

[6] Lu XQ. Clinical observation of laparoscopic surgery and traditional laparotomy in the treatment of ectopic pregnancy [J]. Shenzhen Journal of Integrated traditional Chinese and Western Medicine, 2016, 26 (7): 145-146.

[7] Zhang M. Clinical observation of laparoscopic surgery and laparotomy in the treatment of ectopic pregnancy [J]. Guide to Chinese Medicine, 2016, 14 (2): 164-165.

[8] Hu M. Comparative analysis of clinical effects of laparoscopic surgery and laparotomy in the treatment of ectopic pregnancy, Henan Medical Research, 2016 Journal, 25 (9): 1696-1697.

[9] Beam XM. Analysis of the efficacy of two surgical methods in the treatment of ectopic pregnancy and their effects on the postoperative pregnancy rate] Laboratory Medicine and Clinic, 21613 (10): 1416-14812.

[10] Lai GP, Chen K, Liu HM. Effects of Laparoscopy and Laparotomy on quality of Life and postoperative pregnancy rate in patients with ectopic pregnancy Hainan Medicine, 28 (20): 3394-3395.

[11] Huang XY, He WJ. The effect of laparoscopy and laparotomy in the treatment of ectopic pregnancy and its effect on the recanalization rate of fallopian tube and pregnancy after operation [J]. Chinese and Foreign Medical Research, 2019, 17 (22): 155-157.

[12] Xu Y. Clinical efficacy of laparoscopy in the treatment of ectopic pregnancy [J]. Medical Theory and practice, 2019, 532(14): 2245-2246.

[13] Xiao J, Wang WL. Compare the effects of two surgical methods on ectopic pregnancy and postoperative pregnancy rate [J]. Continuing Medical Education in China, 2019, 11(20): 123-125.