

Observation on Shenqi Fuzheng injection combined with cefoxitin sodium after cesarean section

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Abstract: This paper aims to observe the effect of Shenqi Fuzheng Injection combined with cefoxitin sodium after cesarean section. Clinical data of 126 puerperae were retrospectively analyzed. They randomized into control group and treatment group, and there were 63 cases in each group. Patients in control group were given Cefoxitin Sodium treatment. And patients in treatment group were given Shenqi Fuzheng Injection on the basis of control group. After 7 days of treatment, the clinical curative effect of the two groups was observed and compared. The body temperature of the patients in treatment group was significantly decreased when compared with control group on the 2nd and 3rd day after operation ($P<0.05$); the first exhaust time and defecation time of patients in treatment group were significantly shortened when compared with control group ($P<0.05$); the postoperative hemoglobin and red blood cell count in both groups were all significantly increased when compared with before treatment ($P<0.05$), and the treatment group were evidently higher than control group ($P<0.05$); the postoperative neutrophilic granulocyte percentage, white blood cell count and lymphocytes percentage in both groups were all significantly lowered when compared with before treatment ($P<0.05$), and the neutrophilic granulocyte percentage, white blood cell count and lymphocytes percentage in treatment group were significantly lowered when compared with control group ($P<0.05$). Shenqi Fuzheng injection combined with cefoxitin sodium after cesarean section can effectively reduce the postoperative maternal body temperature and promote the recovery of maternal gastrointestinal function, which is conducive to the repair of uterus, further correct anemia after cesarean section and prevent postpartum infection. Its clinical curative effect is ideal, with certain clinical application value.

Keywords: Shenqi Fuzheng injection; Cefoxitin Sodium; cesarean section.

INTRODUCTION

Cesarean section is one of the most effective and direct means to solve dystocia, which is more common in clinical practice. In recent years, with the continuous improvement of the medical level, the safety of cesarean section is greatly improved and the rate of cesarean section is increasing year by year. After cesarean section, puerperant will face a variety of stimulation factors, which can easily induce the occurrence of postoperative complications such as postoperative infection and seriously threaten the health of pregnant women and newborns (Guo and Han, 2012). In recent years, Shenqi Fuzheng injection is widely used in cesarean section. Due to its ideal clinical curative effect, it can effectively prevent maternal postoperative complications. This paper is mainly to observe the clinical value of Shenqi Fuzheng injection combined with Cefoxitin Sodium after cesarean section. Ethics Committee of Women & Infants Hospital of Zhengzhou has approved this research. Now reported as follows:

MATERIALS AND METHODS

Clinical data

Clinical data of 126 puerperant received cesarean section in our hospital from June 2014 to June 2015 were

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selected. These patients were randomized into control group and treatment group, with 63 cases in each group. Patients in the treatment group were aged between 21-37 years old, with an average age of (23.83 ± 4.72) years old, gestational weeks between 37-41 weeks, primipara 46 cases, multipara 17 cases; body weight ranged 58-80kg with an average of (68.07 ± 5.43) kg. Patients in control group were aged between 24-38 years old, with an average age of (25.62 ± 5.63) years old, gestational weeks between 37-42 weeks, primipara 51 cases, multipara 12 cases; body weight ranged 56-72kg with an average of (63.15 ± 4.28) kg. The difference in age, gestational age, cesarean section indications, body weight, birth frequency and other basic data between the two groups was not statistically significant ($P>0.05$).

Diagnostic criteria

Western diagnostic criteria

According to the cesarean section indications of "Obstetrics and Gynecology" (Zheng et al, 2014): ① Oversized fetus, intrauterine hypoxia, abnormal fetal position; ② Pelvic stenosis or deformity, abnormal maternal soft birth canal; ③ Severe pregnancy induced hypertension; ④ Placenta previa or placental abruption.

TCM diagnostic criteria

Referring to the requirements of "Diagnostics of Traditional Chinese Medicine" (Cui and Yang, 2014):

during the latter half of gestation, there was continuous abdominal pain, lassitude, spontaneous sweating, pale complexion, pale lips and nail beds, pale tongue and weak pulse.

Inclusion criteria

① Puerpera in line with the cesarean section indications of "Obstetrics and Gynecology" and requirements of "Diagnostics of Traditional Chinese Medicine"; ② Single live birth; ③ Puerpera without systemic disease, uterine disease, no pregnancy complications.

Exclusion criteria

① Positive cefoxitin sodium skin test; ② Patients with a deficiency of granulocytes; ③ Patients who were combined with serious heart, liver, kidney dysfunction or hematopoietic system and other primary diseases; ④ Drug allergy in this study.

Treatment method

Control group

Patients in control group were performed with cefoxitin sodium skin test before the cesarean section, and the results were all negative. During the cesarean section, after clamping the umbilical cord, cefoxitin sodium injection (Suzhou No.1 pharmaceutical Co., Ltd.) were given to the patients immediately with intravenous infusion, 2.0 g each time, 2 times each day, continuous treatment for 7 days.

Treatment group

Patients in treatment group underwent cefoxitin sodium skin test before the cesarean section, and the results were all negative. During the cesarean section, after clamping the umbilical cord, Shenqi Fuzheng Injection were given based on the treatment of control group, with intravenous infusion, 250 ml each time, 1 time each day, continuous treatment for 7 days.

Observational index

(1) Body temperature on the second day and the third day were observed after operation between the two groups. (2) The first exhaust time and defecation time after surgery. (3) Postoperative hemoglobin, red blood cell count, neutrophil percentage, white blood cell count and lymphocyte count. (4) postoperative C-reactive protein level. (5) The height of uterine fundus at third, fourth and fifth days after operation.

Laboratory examination

Cell examination (Fan et al, 2013): Flow cytometry produced in Japan and the JE2013 type counter made in Beijing 210 factory were used. Kit (Shanghai Teana Biotechnology Co., Ltd.) was used in this study. 3ml fasting venous blood of 2 groups of patients were collected and the serum was separated and measured.

C-reactive protein (Ye et al, 2012): British Beckman600 / L automatic biochemical detector were used. Micro Acid Titrimetric method was used to detect. Kit was produced by the Shenzhen Zhijun Pharmaceutical Co., Ltd.

RESULTS

Clinical comparison of body temperature on the second days and third days after operation

Compared with control group, the body temperature of the treatment group was decreased significantly at second and third days after operation, with statistical significance ($P<0.05$) (table 1).

Comparison of the first exhaust time and defecation time after operation

Compared with control group, the first exhaust time and defecation time of the treatment group were shortened significantly, with statistical significance ($P<0.05$) (table 2).

Comparison of hemoglobin and red blood cell count in clinical parturients after operation

Compared with before treatment, the hemoglobin and red blood cell count of the two groups after treatment were increased significantly ($P<0.05$). The hemoglobin and red blood cell count in treatment group were significantly increased when compared with control group, with statistical significance ($P<0.05$) (table 3).

Comparison of postoperative neutrophil percentage, white blood cell count and lymphocyte percentage

Compared with before treatment, the postoperative percentage of neutrophils, white blood cell count and lymphocyte percentage in both groups were significantly lowered, with statistical significance ($P<0.05$), and the treatment group was significantly better than those in the control group, with statistical significance ($P<0.05$) (table 4).

Comparison of postoperative C reactive protein levels in patients

Compared with before treatment, the postoperative C-reactive protein in both groups was significantly lowered ($P<0.05$), and the treatment group was significantly lowered when compared with control group, with statistical significance ($P<0.05$) (table 5).

Comparison of the height of uterine fundus at third, fourth and fifth days after operation

On the 3rd day, 4th day and 5th day after operation, the height of uterine fundus of the treatment group was significantly increased when compared with control group, with statistical significance ($P<0.05$) (table 6).

DISCUSSION

In recent years, the rate of cesarean section is increasing
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Table 1: Clinical comparison of body temperature on the second days and third days after operation

Grouping	The second day	The third day
Control group	36.9±17.01	35.84±0.33
Treatment group	36.13±0.29*	36.31±0.02*

Table 2: Comparison of the first exhaust time and defecation time after operation (n=63, $\bar{x}\pm s$, h)

Grouping	First exhaust time	First defecation time
Control group	43.78±7.01	57.34±15.19
Treatment group	22.63±6.69*	30.14±12.02*

Table 3: Comparison of hemoglobin and red blood cell count in clinical parturients after operation (n=63, $\bar{x}\pm s$)

Grouping		Hemoglobin (g/L)	Red blood cell count (109/L)
Control group	Before treatment	80.24±4.86	1.86±0.58
	After treatment	96.21±14.04	2.77±3.91
Treatment group	Before treatment	83.39±5.28	1.91±0.25
	After treatment	108.6±11.91*	3.59±1.01*

Table 4: Comparison of postoperative neutrophil percentage, white blood cell count and lymphocyte percentage (n=63, $\bar{x}\pm s$)

Grouping	Neutrophil percentage (%)	White blood cell count (109/L)	Lymphocyte percentage (%)
Control group	124.24±4.86	90.06±9.58	20.6±1.81
	96.21±4.04	12.77±3.91	12.01±2.71
Treatment group	123.39±5.28	88.91±10.25	19.81±1.71
	85.55±3.31*	10.59±5.01*	10.06±1.48*

Table 5: Comparison of postoperative C reactive protein levels in patients (n=63, $\bar{x}\pm s$, mg/L)

Grouping	Before treatment	After treatment
Control group	192.8±1.71	124.4±42.96
Treatment group	193.7±1.82	107.5±40.42*

Table 6: Comparison of the height of uterine fundus at third, fourth and fifth days after operation (n=63, $\bar{x}\pm s$, cm)

Grouping	The third day	The fourth day	The fifth day
Control group	2.78±1.71	4.04±1.75	4.91±1.82
Treatment group	3.73±1.89*	5.14±1.82*	6.66±1.89*

Note: compared with control group, *P<0.05.

constantly, the rehabilitation of postoperative complications of cesarean section has become one of the most important issues (Xia et al, 2012). After cesarean section, the excessive bleeding, subinvolution of uterus, a large amount of lochia and longer duration, and slow recovery of gastrointestinal function, will further increase the incidence of puerperal infection and complications. Clinical use of traditional Chinese medicine treatment will not have an effect on the maternal and fetal, combined its ideal clinical efficacy, and no adverse reactions, which is worthy of clinical promotion and application.

Shenqifuzheng injection selected in this paper is composed of two herbs, lanceolata and Astragalus, with

the effect of inducing diuresis to alleviate edema and promoting pus discharge and tissue regeneration. Modern research shows that Astragalus has the function of diuresis, promoting milk secretion, promoting tissue regeneration and repair, improving maternal immunity and hematopoietic function, and further promote the recovery of gastrointestinal function, improve blood cells and improve maternal microcirculation (Hong et al, 2013). After cesarean section, due to the maternal prenatal fasting, surgical trauma, slow recovery of gastrointestinal function, which is easy to induce incision infection and urinary tract infection, further causing postoperative fever (Zhang et al, 2013).

In this paper, the application of Shenqifuzheng injection

combined with cefoxitin sodium in postoperative cesarean section was analyzed. The results showed that the body temperature was significantly decreased on the 2nd day and the 3rd day after operation in treatment group. The maternal first exhaust time and defecation time were shorter. The maternal hemoglobin, red blood cell count was significantly higher. Neutrophil percentage, white blood cell count, lymphocyte percentage was significantly reduced. The C-reactive protein was evidently decreased and the height of uterine fundus increased at third, fourth and fifth days after operation, with statistical significance when compared with control group ($P < 0.05$).

CONCLUSION

In conclusion, Shenqi Fuzheng injection can effectively treat postpartum fever due to deficiency of vital energy, and can improve the maternal immunity. Especially the combination application with cefoxitin sodium after cesarean section will significantly reduced the incidence of postoperative complications (Zhao et al, 2013). At the same time, Shenqi Fuzheng injection can improve maternal hemoglobin level, improve blood loss caused by surgical trauma and enhance hematopoietic function. In addition, it can further promote the recovery of maternal gastrointestinal function, effectively shorten the exhaust time and defecation time, and increase the uterine contraction tension, promote uterine rhythmic contraction, which have ensured the involution of uterus after cesarean section.

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