Therapeutic Effect of Azithromycin on Clinical Gynecological Mycoplasma Infection

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Abstract: Objective: To explore the therapeutic effect of Azithromycin on gynecological mycoplasma infection. Method: Forty patients with gynecological mycoplasma infection who underwent examination and treatment in our hospital from June 2021 to June 2022 were selected as the study subjects. These 40 patients were divided into a control group and an experimental group, with 20 patients in each group. Among them, the experimental group was treated with Azithromycin, and the patients in the control group were treated with cefoxitin sodium. The effects, satisfaction and adverse reactions of the two groups were compared. Result: Through experimental comparison, it can be seen that the total effective rate of treatment in the experimental group is better than that in the control group, and the difference between the two is statistically significant ($P<0.05$); After receiving treatment, the IL-10 and TNF levels in two experimental groups of patients- α, CRP and other levels all decreased, and in the observation group, patients' IL-10 and TNF- α. The CRP level will be lower than the control group, and the difference between the two is statistically significant ($P<0.05$). After the experiment, the satisfaction of patients in the observation group will be higher than that in the control group, and the difference between the two is statistically significant ($P<0.05$). Conclusion: The treatment effect of Azithromycin for clinical gynaecological mycoplasma infection will be better. With this treatment method, the clinical symptoms of patients can be effectively improved. At the same time, the treatment compliance and satisfaction of patients can be further improved, and the probability of various adverse reactions can be reduced. It can be popularized and applied to clinical practice.

Keywords: Clinical; Gynecology; Mycoplasma Infection; Azithromycin; Treatment Effect

1. Experimental Data and Methods

1.1 Experimental data

Collect and organize information on 40 patients with gynecological mycoplasma infection who underwent examination and treatment in our hospital from June 2021 to June 2022, and conduct experiments. Extract relevant data from 40 patients and divide them into an experimental group and a control group, with 20 patients in each group. Among them, in the experimental group, the minimum age of patients is 20 years old, the maximum age is 52 years old, and the overall average age is 31 years old; The shortest duration of the disease is 2 months, the longest is 17 months, and the overall average duration is 6 months; There were 3 patients with Endometritis, 7 patients with salpingitis, and 10 patients with pelvic Peritonitis. In the control group, the minimum age of patients was 21 years old, the maximum age was 50 years old, and the overall average age was 30 years old; The shortest duration of the disease is 3 months, the longest is 15 months, and the overall average duration is 7 months; There were 5 patients with Endometritis, 6 patients with salpingitis, and 9 patients with pelvic Peritonitis. There was no statistically significant difference in the basic data of patients between the two groups ($P>0.05$).

1.2 Experimental Methods

The control group was treated with conventional injection of cefoxitin sodium. 2 grams of cefoxitin sodium were added to 100 milliliters of 0.9 sodium chloride solution through intravenous drip twice a day, with an interval of 12 hours between each infusion. The patients in the observation group were treated by injecting Azithromycin. 500 mg Azithromycin was mixed with 250 ml 0.9% sodium chloride solution, and intravenous drip was given once a day. Two experimental groups of patients were treated continuously for seven days, and nursing staff should always remind patients to prohibit sexual activity during the treatment process, maintain a scientific diet, pay attention to rest and hygiene.

1.3 Criteria for determining treatment effectiveness

Recovery: The laboratory mycoplasma culture result was negative, and the patient's various clinical symptoms completely disappeared.

Explicit: The laboratory mycoplasma culture result is negative, and the patient's clinical symptoms have improved, but have not completely disappeared.

Effective: The laboratory mycoplasma culture result is positive, and the patient's clinical symptoms have improved to a corresponding extent.

Invalid: The laboratory mycoplasma culture result is negative, and the patient's clinical symptoms have not significantly improved, and even the condition may worsen.

The total effective rate of treatment is determined by the proportion of patients who have recovered, achieved significant results, and become effective.

A detailed survey and analysis of treatment satisfaction was conducted using a self-made satisfaction questionnaire, with a maximum score of 100. A score below 60 indicates dissatisfaction, a score of 60-79 indicates satisfaction, and a score of 80-100 indicates very satisfaction. The proportion of highly satisfied patients to the total number of patients is the treatment satisfaction rate.

2. Results

2.1 Comparison of total effective rates between two groups of clinical treatments

The total effective rate of treatment for patients in the experimental group will be better than that in the control group, with a statistically significant difference ($P<0.05$). Table 1 shows the comparison of the total effective rate of clinical treatment between the two groups.

Table 1 Comparison of total effective rates of clinical treatment between two groups

group	Number of cases	heal	Apparent effect	effective	invalid
experimental group	20	9（45%）	6（30%）	4（20%）	1（5%）
control group	20	4（20%）	8（40%）	5（25%）	3（15%）
			1.962	1.487	2.003
P			＜0.05	＜0.05	＜0.05

2.2 Comparison of treatment satisfaction rates between two groups of patients

The satisfaction of patients in the observation group will be higher than that in the control group, and the difference between the two groups is statistically significant ($P<0.05$). Table 2 shows the comparison of treatment satisfaction rates

between the two groups of patients.

Table 2 Comparison of treatment satisfaction rates between two groups of patients

group	Number of cases	Very satisfied	satisfied	Dissatisfied
experimental group	20	17（85%）	2（10%）	1（5%）
control group	20	15（75%）	3（15%）	2（10%）
		1.002	1.352	1.458
		＜0.05	＜0.05	＜0.05

3. Conclusion

Mycoplasma infection is a very common disease in gynecological clinic, especially in women of childbearing age. If patients do not control their condition in time, then it is extremely easy to form serious gynecological diseases such as salpingitis and salpingo Ovarian cyst. Under the influence of mycoplasma infection factors, it can cause diseases such as local pelvic adhesions and fluid accumulation, and even cause serious symptoms such as infertility and ectopic pregnancy in some women, directly endangering their own safety. If a patient discovers that they have already contracted a Mycoplasma infection disease, effective measures must be taken immediately for treatment. In practical clinical practice, antibiotics can be used for the treatment of Mycoplasma infection disease. There are many types of antibiotic drugs, and more effective and targeted drugs should be selected for treatment. Azithromycin is a Macrolide antibiotic. Its application can further regulate the inflammatory reaction and immune function of patients, reduce the degree of cell damage symptoms caused by inflammatory reaction, and thus alleviate the inflammation of patients. Azithromycin can combine with the 50 second Ribosome subunit of sensitive microorganisms to interfere with the protein synthesis process, so as to achieve the goal of sterilization and antibacterial treatment. Azithromycin has a wide Antimicrobial spectrum, which contains more common pathogenic microorganisms, atypical pathogens, and can kill 98% of anaerobes and mycoplasmas. It can be learned that Azithromycin has a strong application effect in clinical gynecology. Its antibacterial performance is remarkable, and it can kill some common pathogens, microorganisms and atypical pathogens. It has obvious pharmacokinetic advantages, and can be used in tissues and body fluids. Its bioavailability can reach 54%, and its half-life is 68 hours. Its drug can act on human blood, Can maintain effective concentration for a long period of time. Moreover, during the use period, the local drug concentration of these drugs will significantly exceed the advantages of traditional multi drug combination therapy in terms of adverse reactions, dosage, and duration compared to other drugs, and the probability of adverse reactions among patients will also be relatively low. This treatment method can maximize patients' compliance with treatment, reduce treatment costs, and reduce economic pressure on patients.

Conclusion

To sum up, with the increasing number of female employees in China at this stage, women in the workplace will sit in the office for a long time with low resistance. Under the influence of insufficient exercise and other factors, the number of patients with cervical mycoplasma infection continues to increase, which is extremely easy to cause various gynecological diseases such as salpingitis and Cervicitis, thus affecting women's normal living conditions. In clinical practice, the use of Azithromycin can significantly improve the symptoms of patients. It is a highly effective and safe treatment drug, which can minimize the incidence of adverse reactions. It is worth applying its treatment to clinical practice and promoting.

References

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