

Survey of Pregnancy Status and Needs of Female Patients with Rheumatoid Arthritis of Childbearing Age

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Abstract: Object: Understand the status and needs of pregnancy and breastfeeding in patients with rheumatoid arthritis of childbearing age, and analyze the factors that affect the decision-making of patients. **Methods:** Using convenience sampling method, 53 patients with rheumatoid arthritis of childbearing age who visited our hospital's rheumatology and immunology clinic from June to December 2019 were selected for investigation and study. Use general information questionnaires and self-made questionnaires to conduct questionnaire surveys and data collection for this population. **Results:** Among the 53 patients, the top three factors influencing the decision of whether to become pregnant or breastfeeding were: worry that rheumatism would affect the fetus (80.6%), worry that rheumatism would be passed on to offspring (66.5%), and worry about pregnancy caused rheumatism recurrence (67.9%). Patients believe that during pregnancy and breastfeeding, the need for help from medical workers mainly includes: medication guidance (75.0%), condition monitoring (68.5%), pregnancy/pregnancy/lactation management (64.5%) and mental care (55.3%). **Conclusion:** Rheumatoid arthritis patients of childbearing age generally choose to abandon pregnancy or breastfeeding after delivery. Medical staff should take effective measures to strengthen patient education based on factors that affect patient decision-making, and provide targeted medication guidance to patient groups with different needs, disease management and spiritual care to improve the quality of life of patients and meet their fertility needs.

Key words: Rheumatoid arthritis, childbearing age, pregnancy, lactation decision-making factors.

1. Introduction

Rheumatoid arthritis (rheumatoid arthritis, RA) is a chronic, autoimmune disease dominated by inflammatory synovitis. The global prevalence of RA is about 2%, and the prevalence rate in my country is 0.24%-0.36% [1]. The incidence of women is 2-3 times that of men, and the peak period of incidence is between 20 and 50 years of age [1]. Most patients require lifelong medication, and they are prone to relapse after stopping the medication, and it is more common in women of childbearing age [2]. Although studies have shown [3], estrogen and progesterone are important protective factors for the disease, and 89.5% of RA patients have remission or low disease activity after pregnancy. However, 1 to 12 months after

delivery, especially at 3-9 months, most of them will relapse. If they are not controlled in time, it may increase the risk of disability. With the policy of opening up to the second child in China, more women have fertility requirements. In order to better provide disease management and fertility guidance for female patients with RA during the reproductive period, the Department of Rheumatology and Immunology of our hospital will be reported from June to December 2019. 53 patients with rheumatoid arthritis of childbearing age were investigated in the outpatient clinic. The report is as follows.

2. Object and Method

Subjects: Using the convenient sampling method, 53 female patients with rheumatoid arthritis of childbearing age who visited our hospital from June to December 2019 were selected as the research subjects. **Inclusion criteria:** (1) meet the RA classification

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criteria proposed by the American College of Rheumatology (ACR) and the European Union Against Rheumatism (EULAR) in 2010 [4], that is, the total score of 6 points or more can be classified as RA; (2) 20-45 years old married female patients; (3) ability to read and normal comprehension; (4) agree and willing to participate in this study, and sign an informed consent form. Exclusion criteria: (1) mental illness and history of psychological diseases; (2) overlap other autoimmune diseases, such as systemic lupus erythematosus, etc.; (3) suffering from other major diseases.

Research methods: the questionnaire survey method was used to collect patient case data, including general information, diagnosis and treatment status, current status of pregnancy and childbirth, pregnancy, pregnancy, and lactation. The investigator explained the purpose and significance of the study to the patients after uniform training, and issued a questionnaire after the RA patients who met the inclusion criteria signed an informed consent. Collect and check the questionnaire on site. A total of 55 questionnaires were issued, 53 questionnaires were returned, and 53 questionnaires were valid, with an effective rate of 96.4%.

Statistical method: enter the obtained data into SPSS 20.0 software for statistical analysis. The counting data are described by the rate. When the measurement data obey the normal distribution, it is expressed as $\bar{x} \pm s$.

3. Result

General information: collect the case data of 53 RA patients in the outpatient department of the rheumatology and immunology department of a tertiary A hospital, aged 22 to 41 years old, with an average of (31.92 ± 4.86) years old; 18 people with a secondary school education and 35 people with a middle school education and above. The course of disease was 2 to 6 years, with an average of 4.99 ± 4.04 years; 1 case had no pregnancy plan within 2 years, 16 cases planned pregnancy, 33 cases during

lactation, and 3 cases during pregnancy.

Comparison of requirements during pregnancy, pregnancy, and lactation: 52, 36, and 33 of the 53 patients gave feedback on the needs during pregnancy, pregnancy, and lactation, respectively (see Table 1). Patients' feedback and consideration of the top three factors that may affect their pregnancy and breastfeeding decision-making are the same in the three periods. They are worried about the effects of rheumatic drugs on the fetus, that rheumatism will be passed on to the offspring, and that pregnancy may cause rheumatism to recur. They are 80.6%, 66.5%, and 67.9%. Patients' feedback is that the top four aspects of the need for guidance and help from medical staff during pregnancy and pregnancy are consistent in each period, namely medication guidance, disease monitoring, pregnancy/pregnancy/lactation management and mental care, with an average proportion of 75.0%, 68.5%, 64.5%, 55.3% respectively. In the 33 cases of breastfeeding demand survey, mental care (57.6%) was higher than breastfeeding management (54.5%).

The reasons for failure during pregnancy, pregnancy and lactation and the comparison of medications at the time of failure: among 53 patients, 7, 15, and 16 patients respectively gave feedback on the reasons for failure and medication during pregnancy, pregnancy and lactation (see Table 2). Patients reported that the reasons for failure during pregnancy and pregnancy accounted for the average, and the reasons for failure during lactation were drug factors (81.3%), rheumatism recurrence (50.0%), and other diseases (6.3%). The top three drugs used by patients when they failed to prepare for pregnancy were hydroxychloroquine (85.7%), sulfasalazine (71.4%) and glucocorticoids (57.1%). The top three drugs used most frequently during pregnancy failure were hydroxychloroquine (66.7%), sulfasalazine (33.3%) and traditional Chinese medicine (33.3%). The top three drugs used most frequently when lactation fails are hydroxychloroquine (62.5%), methotrexate (62.5%) and glucocorticoids (43.75%).

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Table 1 Comparison of requirements during pregnancy, pregnancy and lactation period (percentage).

		Preparation period (52 cases)	Pregnancy (36 cases)	Lactation period (33 cases)
Worries	Rheumatism medication affects the fetus	43 (82.7%)	30 (83.3%)	25 (75.8%)
	Whether rheumatism is passed on to offspring	38 (73.1%)	27 (75.0%)	17 (51.5%)
	Rheumatism recurrence	35 (67.3%)	24 (66.7%)	23 (69.7%)
	Can childbirth and complications/worries about whether the child is healthy/not enough breast milk	2 (3.8%)	1 (2.8%)	1 (2.8%)
	No worries	1 (1.9%)	1 (2.8%)	0
Guidance and help needed	Medication guidance	40 (76.9%)	25 (69.4%)	26 (78.8%)
	Condition monitoring	36 (69.2%)	24 (66.7%)	23 (69.7%)
	Pregnancy/pregnancy/breastfeeding management	39 (75.0%)	23 (63.9%)	18 (54.5%)
	Spiritual care	26 (50.0%)	21 (58.3%)	19 (57.6%)
	Financial support	19 (36.5%)	16 (44.4%)	11 (33.3%)

Table 2 Reasons for failure during pregnancy, pregnancy and lactation and comparison of medications during failure (percentage).

		Preparation period (7 cases)	Pregnancy (15 cases)	Lactation period (16 cases)
Reason for failure	Drug factors	2 (28.6%)	5 (33.3%)	13 (81.3%)
	Rheumatism recurrence	2 (28.6%)	0	8 (50.0%)
	Combined with other diseases	0	5 (33.3%)	1 (6.3%)
	other	2 (28.6%)	5 (33.3%)	0
Medications used at the time of failure	Hydroxychloroquine	6 (85.7%)	10 (66.7%)	10 (62.5%)
	Sulfasalazine	5 (71.4%)	5 (33.3%)	6 (37.5%)
	Glucocorticoid	4 (57.1%)	0	7 (43.75%)
	Methotrexate	3 (42.9%)	0	10 (62.5%)
	Cyclophosphamide	1 (14.3%)	0	0
	Traditional Chinese medicine	0	5 (33.3%)	3 (18.8%)

4. Discussion

With the change of medical model and the development of medicine, patients' quality of life has received more and more attention. If rheumatoid arthritis and other autoimmune diseases can not be diagnosed and treated early, the disability rate is high, which will seriously affect the quality of life of patients [5, 6]. As a special population, women of childbearing age must not only bear the physiological changes caused by the disease, but also bear great fertility pressure. The results of this study show that female patients of childbearing age face fertility problems, no matter which stage of reproductive age, the main concern is that medication may cause fetal malformations and thus give up pregnancy or breastfeeding. In addition, patients with rheumatoid arthritis often get better during pregnancy or alleviate,

it is easy to mislead the patient to think that the disease is getting better and stop the drug. Therefore, the most needed guidance and help for this population is the management of medication. The research results of Liu et al. [7] showed that biological preparations are not recommended for the pregnancy and lactation period of patients with rheumatic diseases. The results of Han et al. [8] showed that pregnancy and oral contraceptives had no significant effect on the prognosis of rheumatoid arthritis, but they did not describe the condition of the fetus at birth. Yang [9] and others believe that the animal model of rheumatoid arthritis also shows the effect of prolactin on arthritis. Whether it can prevent the aggravation of postpartum disease by inhibiting the level of prolactin is a topic worthy of clinical research. When Chen [10] investigated and analyzed the current status of information support for patients with rheumatoid

arthritis, he found that patients received relatively little knowledge about the specific names of medications, side effects, and ways of taking them. Therefore, for female rheumatoid arthritis patients of childbearing age, fertility-related medication guidance is very necessary.

In this study, the survey results show that the drugs used by patients for pregnancy, pregnancy and breastfeeding failure are roughly the same, mainly hydroxychloroquine, sulfasalazine, glucocorticoids and methotrexate. Due to the widespread use of Chinese medicine, it also accounts for a certain proportion of drugs used simultaneously [11, 12]. In the interpretation of the medication guidelines for patients with rheumatism published by Li et al. [13], although the use of some classic anti-rheumatic drugs during pregnancy and lactation is instructed, the use of traditional Chinese medicine is not involved. Therefore, when we provide medication guidance to patients, in addition to referencing the guidelines for rational use of medications, we must also give personalized guidance based on the actual medication use of patients.

Most patients with RA will relapse 3-9 months after delivery. At this time, the disease management of patients should be strengthened. When joint symptoms worsen after childbirth, drugs that do not affect breastfeeding should be appropriately added to control the condition to ensure breastfeeding; but when the condition can not be effectively controlled, the patient should be decisively weaned and strengthen drugs to control the condition [14]. The results of this study also show that in addition to medication guidance, patients also have a need for disease management throughout the reproductive stages of pregnancy, pregnancy, and lactation, as well as mental care in each period. Studies have pointed out that immune diseases are recurring and occur in women of childbearing age. Poor disease control often brings infertility pain to patients and families. Patients are prone to inferiority complex, anxiety, depression and

other emotions. In severe cases, suicidal thoughts can occur [15]. Therefore, we should also do a good job of discharge follow-up, condition monitoring and psychological guidance to give patients all-round support.

5. Conclusion

In summary, patients with rheumatoid arthritis of childbearing age face the pressure of pregnancy, and the main concern is that drugs cause fetal malformations and disease recurrence. This group of people has greater demand for medication guidance, disease monitoring, and fertility management. Therefore, when we face such patients, on the basis of doing a good job of psychological counseling, we need to do a good job of medication guidance, disease management and spiritual care, so as to improve their quality of life and meet their reproductive needs as much as possible.

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