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Case Report on Rheumatoid Arthritis

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Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

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Case Study

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ABSTRACT

Rheumatoid arthritis (RA) is an autoimmune disorder that inhibits the body's immune system that induces inflammation in the injured areas of the body. It is commonly caused the joints of the palms, wrists, and knees. An inflaming rheumatoid arthritis joint contributes to joint tissue damage. This condition may cause chronic or long term discomfort, instability, and deformation. Symptoms include exhaustion, pain, and depression. If the patient does not undergo early diagnosis and care for symptoms, a series of symptoms can arise including Osteoporosis, rheumatoid nodules, dry eye and mouth, carpal tunnel syndrome Case Report: The female patient name is Yogita Shinde 65-year-old religion Hindu lived in the kandhali. She was admitted to AVBR Hospital with the chief complaint of pain in her shoulder and hands, joints pain, swelling on both the hands. She started taking ibuprofen 800 mg 3 times per day to relieve discomfort and rigidity. Three months earlier, as she was doing her job, she had pain on her right and left shoulders. She still started to feel very sleepy and short-tempered. Tab ibuprofen was not an effective very long time for pain. One morning, Yogita couldn't lift her arms without the intense pain of her back. She was conscious that it was time for help. She had spoken to her parents, and they advised her to see a physician. The primary healthcare practitioner (PHP), who tested and carried out a variety of blood test. Positive-rheumatoid factors, CCP antibiotics, higher ESR, and C-reactive protein were seen via the blood samples. These findings were communicated to Yogita and the Rheumatologist was directed at her PCP to see her as soon as possible. The primary health care practitioner inquired about the medical records of Yogita parents and grandparents, family conditions, medical and operative

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records of yogita, and details on their family and working lives. And after that, the physician started the treatment, after which Yogita feels better for some days. After a few weeks she having recurrent pain in her hand and foot, this is intolerable to her. And then she is admitted to AVBR Hospital on date 20th Sept 2020

Keywords: Rheumatoid arthritis, Osteoporosis, Rheumatoid nodules, Carpal tunnel syndrome.

1. INTRODUCTION

Rheumatoid arthritis is an inflammatory pathological, chronic autoimmune disorder in diarthrodial connecting tissue. Typically, rheumatoid arthritis is characterized by healing and recurrence cycles. RA often has extracellular manifestation [1]. RA that causing joint inflammation and pain. This disease directly affects the immune system of the body which may not function correctly and attacks the joint covering [2]. The exact cause of RA is unknown. This is presumably attributed to a combination of genes and environmental influences [1]. The important disease condition that diagnoses early as a delay in treatment can worsening the prognosis, leading to more damage to tissues and organs including the lungs and heart and even death [2]. This disorder has several symptoms such as fatigue, anorexia, lack of weight, and generalized rigidity. In the following months and weeks, rigidity becomes localized RA typically involves joints that are affected by discomfort, radiance, reduced mobility, and inflammatory symptoms, including sweat, swelling, or tenderness [1].

Rheumatoid arthritis has a prevalence of about three cases per 10,000 people, and it is about 1% with global population with age and height between 35 and 50 years of age, rising.

The main treatment objective of Rheumatoid arthritis is to manage infection, alleviate the pain, and eliminate rheumatoid arthritis disease.

Treatments may include occupational or physical therapy, and exercise is generally used in recovery.

1. Illness-modification antirheumatic drugs (DMARDs) include Azathioprine, cyclophosphamide, leflunomide, methotrexate, and sulfasalazine.
2. Biologic response modifiers also know as immunotherapy used to slow disease progression in RA. The drugs involving TNF inhibitors such as etanercept, infliximab, adalimumab, certolizumab et.
3. NSAID such an ibuprofen, or naproxen, aspirin
4. Corticosteroids such as prednisone
5. Antimalarial medications such as Quinine sulfate with doxycycline (Vibramycin, Monodox,), Mefloquine [3].

2. NON-PHARMACOLOGIC THERAPIES

The Non–pharmacologic therapies include the following:

Rest therapy: When joint are inflamed, the risk of injury to the joint and nearby soft tissue structures (such as ligaments and tendons) is high. This is why inflamed joint should be rested. Maintaining good range of motion in the joint and good fitness overall are important in coping with the overall features of the diseases. [4].

Exercise: Ache and stiffness sometimes prompt people to become inactive with rheumatoid arthritis. Inactivity, however, can result in a lack of joint mobility, constriction, and a loss of muscle strength. These, in effect, reduce the flexibility of joints and raise fatigue.[5]

Physical therapists and occupational therapists advised to do regular routinely exercises. This help to avoid and change these results. Valuable activities include: range - of - motion exercises to maintain and recover joint motion; strength-enhancing movements; and workout and some exercises like(swimming, walking, and cycling) to improve stamina [5].

2.1 Physical and Occupational Therapy

Physical and occupational therapy may alleviate the pain, minimize inflammation, and help to maintain joint function and structure for patients with rheumatoid arthritis.

- The application of heat and cold can relieve pain and joint stiffness.
- Ache or hardness may be reduced by applying heat or ice.
- Inflammation of the sheaths underlying tendons may be reduced by ultrasound.
- Routinely exercises can enhance and improve the joints' range of motion.

Occupational therapists also concentrate on supporting individuals with rheumatoid arthritis learn to interact regularly in working and recreational activity, with particular focus on managing and maintaining the hands and arms' good function [6].

2.2 Nutrition and Dietary Therapy

To decrease stress on affected joints, weight loss may be advised for overweight and obese people. There seems to be a greater chance of developing cardiovascular disease in people with rheumatoid arthritis. High cholesterol can lead to diet modifications (a risk factor for coronary artery disease). In order to reach a desirable cholesterol level, a nutritionist may prescribe particular foods to consume or avoid changes in diet have been investigated as treatments for rheumatoid arthritis, but no diet has been proven to cure it. No herbal or nutritional supplements, such as cartilage or collagen, can cure rheumatoid arthritis. These treatments can be dangerous and are not usually recommended [7].

3. CASE HISTORY

The female patient name is yogita shinde 65-year-old religion by Hindu lived in the kandhali. She is a housewife and does various home activities, she lived in a joined family with her husband and son, who is the breadwinner of her family, Mr. Samir Shinde has completed his education at class 12th and he doing work as an ST-driver and he has bred winner of his family and monthly income is around 20,000 per month. The source of health care is a government hospital in Wardha.

She was admitted in the AVBR Hospital with the chief complaint of pain in hands and shoulder, joints pain, swelling on both hands for the last 10 days before coming to the hospital. Before She came to the hospital she is admitted in ortho ward no 32, she was having intolerable pain in hands and swelling also present on her hands. She take tablet brufen 400 MG previously and no medical history in past and she has done her family planning (tubal ligation) other than she not having any type of surgical history.

4. DISCUSSION

4.1 NURSING ASSESSMENT

A detailed patient physical evaluation, involving inspection of all the joints, many of which were sore and swollen. Her Rapid 3 Score was 21.8, consistent with severe impairment and significant disease activity. The physician explained the results of the test with her and the laboratory samples from her PCP were checked. The physician prescribed x-rays of his arms, wrists, and shoulders. The physician also referred her to the rheumatologist. Together, they discussed with Yogita that Rheumatoid Arthritis (RA) is her most likely diagnosis. General details were discussed briefly regarding RA and common treatment options. Low-dose prednisone was recommended for Yogita and corticosteroid injections were given by the physician to both of her shoulders.

The drugs' general side effects and potential outcomes were clarified with her and her symptoms would eventually be managed but not necessarily solved. Nurse advised there she is having any difficulty calls the physician and clear her doubts. Two weeks later, at her follow-up appointment with that of the rheumatologist, tests verified which her records and examination revealed, that she had developed rheumatoid arthritis. The shoulders of Yogita began to look a little better, but she still had discomfort and trouble in lifting her arms. For more examination and care of her shoulders and guidance on exercise change relevant to her practice, the Rheumatologist instructed the Physical Therapist (PT). Oral methotrexate and folic acid were administered and a low dosage of prednisone was recommended. The physician prescribed written information about the drugs and referred her to the pharmacist's office for a prescription analysis and to ask any questions. Specific information was given on rheumatoid arthritis. Her Rapid 3 Score, consistent with low disease activity and disease severity, had decreased to 4. There was slight joint stiffness even though she had 3 swollen and sore knees.

4.2 Nursing Management

Nursing care of the patient with RA should follow a basic plan of care.

Nursing Assessment: The assessment of a patient with RA can contribute to its diagnosis.

- **History and physical exam:** The history and physical examination address manifestations such as bilateral and symmetric stiffness, tenderness, swelling, and temperature changes in the joints.

- **Extra-articular changes:** The patient is also assessed for extra-articular changes and these include weight loss, sensory changes, lymph node enlargement, and fatigue.

The nurse must educate Yogita in:

- The nurse has to provide a variety of comfort measures (eg. application of heat or cold, massage, position changes, rest, foam mattress, supportive pillow, splints, relaxation techniques, diversional activities).
- Administer anti-inflammatory, analgesic, and slow-acting anti-rheumatic medications as prescribed by doctor order.
- Administer analgesics medication to meet patient's need for pain management.
- Encourage verbalization of feelings about pain and chronicity of disease.[8]
- Assist in identification of pain that leads to use of unproven methods of treatment.
- Provide instruction about fatigue, describe comfort measures and sleep routine (warm bath and relaxation techniques that promote sleep) and also explain importance of rest for relieving systematic, articular, and emotional stress.
- Assisted in doing a daily activity of the patient and advised to perform self-care as much as possible.
- Help patient identify elements of control over disease symptoms and treatment.
- Encourage patient's verbalization of feelings, perceptions, and fears.
- Develop plan for managing symptoms and enlisting support of family and friends to promote daily function [9].

4.3 Nursing Diagnosis

Nursing diagnosis according to patient complaints are as follow:

1. Impaired physical mobility related to joint pain, stiffness.
2. Chronic pain is related to inflammation and intolerable pain.
3. Disturbed body image related to chronic disease activity, long-term treatment, and inability to perform the usual activity.

Follow up and outcomes: At the time of discharge, the patient's condition was satisfactory. The relatives were informed about the prognosis of the disease, drug therapy, and the importance of taking medication in time. It is also told that they should come after 7 days for routine follow to see the disease outcome

5. CONCLUSION

Rheumatoid arthritis is a debilitating, chronic, inflammatory disease, capable of causing joint damage as well as long-term disability. Early diagnosis and intervention are essential for the prevention of serious damage and loss of essential bodily functions. This case presented the prolonged history of rheumatoid arthritis causing mainly involves the joints, generally multiple hands and leg joints, and more frequently involves the joints in the neck, wrists, and knees. According to the patient condition the treatment given by the physician and Nursing management goals should include the relief of symptoms, preservation of joint function, prevention of joint damage and deformity, maintenance of an acceptable lifestyle, and patient education. To achieve these aims the nurse should play a pivotal role within the multidisciplinary team, ensuring the highest quality of care.

CONSENT

Before taking this case, information was given to the patient and their relatives and informed consent was obtained from the patient as well as relatives.

ETHICAL APPROVAL

As per international standard or university standard written ethical approval has been collected and preserved by the author(s).

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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