### THE MULTIDISCIPLINARY JOURNAL OF SCIENCE AND TECHNOLOGY

#### **VOLUME-4, ISSUE-4**

## IMPACT OF POLYMYOSITIS AND DERMATOMYOSITIS DISEASES ON THE HUMAN ORGANISM, SYMPTOMS AND TREATMENT METHODS.

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**Abstract:** Polymyositis and dermatomyositis are inflammatory myopathies characterized by signs of decreased muscle strength in the limbs near the body, as well as elevated muscle enzyme levels on test results, abnormal electromyographic findings, and abnormal findings on muscle biopsy. are defined as diseases that show. In the case of dermatomyositis, a characteristic skin rash appears in addition. In this article, we will get acquainted with the effects of the above-mentioned diseases on the human body, the symptoms they cause, and the methods of treatment.

**Key words:** Polymyositis and Dermatomyositis, Symptoms, Testing, Electromyography, Muscle biopsy, Immunosuppressants, Immunomodulator

**Main part:** Polymyositis and dermatomyositis are myopathies, which are inflammatory diseases of the muscles. The symptoms of these diseases are usually manifested in the form of muscle weakness, muscle pain, muscle weakness, fatigue, joint pain and skin rash. While polymyositis usually affects proximal muscles, dermatomyositis can affect muscles and skin.

Although the cause of polymyositis and dermatomyositis is unknown, it is thought to occur when the body's immune system attacks muscle cells as a result of an autoimmune process. These diseases are usually diagnosed using clinical signs, muscle biopsy, blood tests and electromyography.

Symptoms are based on symptoms of muscle weakness and the results of several tests. Tests used include electromyography, muscle enzyme levels and muscle biopsy results, and the presence or absence of a skin rash to differentiate polymyositis from dermatomyositis.

### Testing The following tests are used to diagnose polymyositis and dermatomyositis.

- Electromyography: This is a test that examines the electrophysiological properties of muscles and nerves by inserting a probe into the muscle. On examination, both polymyositis and dermatomyositis show findings consistent with myopathy.
- Muscle enzyme level test: measures the level of muscle destruction by measuring muscle enzyme levels in the blood. For both polymyositis and dermatomyositis, levels can be 50 times higher than normal.
- Muscle biopsy: The affected muscle is biopsied and viewed directly under a microscope, and this can differentiate between polymyositis and dermatomyositis.

In most cases, muscle weakness due to polymyositis and dermatomyositis develops gradually over several weeks or months, but in rare cases it develops rapidly. If left untreated, severe muscle weakness can lead to muscle wasting. Polymyositis rarely occurs alone and is often associated with other autoimmune diseases or viral or bacterial infections. When dermatomyositis occurs in the elderly, it is often associated with cancer and has been associated with ovarian cancer, breast cancer, melanoma, colon cancer, and lymphoma. Therefore, after the diagnosis of dermatomyositis, it is necessary to undergo an examination every year to make sure that the corresponding cancer has not developed. For polymyositis and dermatomyositis, the 5-year

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survival rate is 95% and the 10-year survival rate is about 85%. Most deaths involve systemic organs such as the lungs and heart, and it is known that disease progression and treatment outcomes are poor if treatment is delayed after the onset of symptoms or associated with cancer. However, most patients respond to treatment, their symptoms improve, and function can be restored with maintenance treatment.

Treatment is usually with corticosteroids (such as prednisone) and immunosuppressive drugs. During treatment, it is important to regularly use the drugs recommended by the doctor. Physical therapy and rehabilitation can also be important to increase muscle strength and function. Depending on the course of the disease and the general state of health of the person, different treatment methods may be required. During treatment, it is important to keep in regular contact with the doctor and go for follow-up examinations.

#### Below are medications used for polymyositis and dermatomyositis.

- ✓ Steroids: This is the most commonly used drug for early treatment. Simply feeling full of energy or a decrease in muscle enzyme levels is not considered a response to treatment, and recovery of muscle strength is an important sign. In general, the treatment of dermatomyositis is better than that of polymyositis.
- ✓ Immunosuppressants: 75% of patients require additional immunosuppressants in addition to steroids. Different drugs can be used, such as azathioprine and methotrexate.
- Immunomodulator: Intravenous immunoglobulin is used and has been shown to be effective in improving not only muscle strength but also muscle biopsy findings in dermatomyositis. The disadvantage is that the effect of the drug does not last long, so it must be re-introduced every 6-8 weeks.

**Conclusions:** The goal of treatment for polymyositis and dermatomyositis is to improve muscle strength to support daily living and improve nonmuscular symptoms such as rash, difficulty swallowing, difficulty breathing, and fever.

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