PLASMAPHERESIS AND ITS MECHANISMS IN THE TREATMENT OF ACUTE RADICULONEUROPATHY SYNDROME: EFFECTIVENESS OF THE METHOD

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Abstract: This review examines the important role of plasmapheresis in the treatment of acute radiculoneuropathy syndrome (ARN). ORN is a neurological disease characterized by inflammation and degeneration of peripheral nerves. Plasmapheresis, as a procedure for purifying plasma from the blood, plays a key role in reducing the concentration of harmful antibodies and inflammatory mediators, which helps slow the progression of neuropathy and improve the clinical symptoms of acute respiratory failure. The potential effectiveness of plasmapheresis in the treatment of ARF is confirmed, but further research is needed to optimize its use and increase understanding of the mechanisms of action.

Key words: plasmapheresis, acute radiculoneuropathy syndrome, peripheral nerves, antibodies, inflammation, treatment effectiveness.

Acute radiculoneuropathy syndrome (ARN) is a neurological disease characterized by inflammation and degeneration of peripheral nerves. This condition can present with a variety of symptoms, including pain, numbness, weakness and paralysis. Treatment of ORN is a challenge for the medical community, and one method that is gaining attention is plasmapheresis.

Plasmapheresis is a procedure aimed at purifying plasma from the blood in order to remove harmful factors such as antibodies circulating in the blood. In the context of ORN, plasmapheresis may play a key role in reducing inflammation and suppressing the immune response that can lead to peripheral nerve damage.

The mechanism of action of plasmapheresis in acute respiratory failure is based on the removal of pathogenic antibodies and other inflammatory mediators from the blood. Reducing their concentrations in the blood can help slow the progression of neuropathy and improve clinical symptoms in patients.

Method for studying the role of plasmapheresis in the treatment of acute radiculoneuropathy syndrome: mechanisms and effectiveness.

Purpose of the study: To evaluate the effectiveness of plasmapheresis in the treatment of acute radiculoneuropathy syndrome and analyze its mechanisms of action.

Subject of the study: Patients diagnosed with acute radiculoneuropathy syndrome undergoing plasmapheresis treatment.

Material and method:

1. Patient Selection: Patients diagnosed with acute radiculoneuropathy syndrome will be selected according to clinical criteria, including symptoms and results of additional testing (eg, electromyography).

2. Grouping: Patients will be randomly divided into two groups: an experimental group that will receive plasmapheresis treatment in combination with conventional therapy, and a control group that will receive conventional treatment alone.

3. Plasmapheresis: Patients in the experimental group will undergo plasmapheresis using standard protocols and equipment.

4. Evaluate effectiveness: Clinical parameters (eg, pain level, muscle strength, range of motion) and the results of additional studies (eg, electromyography) will be assessed before treatment, after each plasmapheresis session and at the end of the course of treatment.

5. Statistical Analysis: The obtained data will be analyzed using appropriate statistical methods to compare the results between the experimental and control groups.

Expected Results: Plasmapheresis in combination with conventional therapy is expected to result in more rapid improvements in clinical parameters and electrophysiological parameters in patients with acute radiculoneuropathy syndrome compared with controls.

Conclusion The proposed research methodology will allow us to evaluate the role of plasmapheresis in the treatment of acute radiculoneuropathy syndrome and to better understand its mechanisms of action and effectiveness.

This is only an example of the study methodology, and specific details may vary depending on goals, available resources, and patient characteristics.

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