ORIGINAL ARTICLE

INTERNATIONAL JOURNAL OF ARTIFICIAL INTELLIGENCE

ISSN: 2692-5206, Impact Factor: 12,23
American Academic publishers, volume 05, issue 02,2025

Journal: https://www.academicpublishers.org/journals/index.php/ijai

EXPERIENCE OF USING ELECTROPHORESIS FOR THE TREATMENT OF POST-INJECTION ASEPTIC MUSCLE TISSUE ABSCESSES AFTER LONG-TERM USE OF INJECTION ANTIBIOTICS DURING THE TREATMENT OF EXTENSIVELY DRUG-RESISTANT TUBERCULOSIS OF THE PULMONARY AND EXTRAPULMONARY ORGANS

Sadiqxodjayev S.Sh., Dexqonov A., Tojaliyev B..
Fergana regional phthisiatry and pulmonology center
Karimov M., Rahmadjonov A., Madvaliyev J.
Fergana Medical Institute of Public Health

Abstract: Most patients are forced to receive injections during their lives, especially intramuscularly. So in phthisiology, when treating multiresistant forms of tuberculosis, injection antibiotics are used in treatment regimens as one of the main drugs. But the duration of drug use leads to the development of both systemic side effects and local side effects at the injection site. In this article, I would like to share the experience of eliminating post-injection aseptic abscess using electrophoresis.
Key words:diclofenac, lyoton gel, bronchodilator, anesthetic, aminoglycosides.

INTRODUCTION

In the study we included 40 patients undergoing hospital treatment and receiving standard treatment for drug-resistant pulmonary tuberculosis.
They were divided into four groups. Each group consisted of 10 patients.
The first group included patients treated with ointments with resolving and anti-inflammatory properties (diclofenac ointment, lyoton) for the treatment of post-injection aseptic abscesses. gel)[1].
The second group included patients for the treatment of post-injection aseptic abscesses using electrophoresis on the gluteal muscles with anti-inflammatory drugs (2.5% diclofenac solution - 3.0 ml and 50% analgin solution - 2 ml).
The third group included patients treated with electrophoresis on the gluteal muscles using a bronchodilator for the treatment of post-injection aseptic abscesses. (2.4% euphyllin - 5.0 ml) and local anesthetic (0.5% novocaine - 5 ml)[2].
The fourth group included patients treated for post-injection aseptic abscesses using electrophoresis on the gluteal muscles using a ready-made solution of magnesium sulfate at a concentration of 33%.
We also divided patients into subgroups in each group:
Patients who have already received 1 or 2 courses of injectable antibiotics (i.e. 6 to 8 months)
Patients who are administered injectable antibiotics (aminoglycosides) for 2-3 months
Patients who have just started using injectable antibiotics
(aminoglycosides).
As a result, we observed a more positive effect in the third group, which after using the 3rd to 4th course days experienced a reduction in pain, elimination of discomfort in the gluteal muscles, softening of the muscles in this area, and patients actually did not complain with further use of injectable antibiotics during the course[3].
In the second group, partial resorption of the formed infiltrate and a decrease in pain in the buttocks were observed, but complaints of pain also remained during the administration of injections.

ISSN: 2692-5206, Impact Factor: 12,23
American Academic publishers, volume 05, issue 02,2025
Journal: https://www.academicpublishers.org/journals/index.php/ijai

In the first and fourth groups, the dynamics of resorption was observed very slowly. During the first course, i.e. 10 days, resorption by these drugs was not effective.

RESULTS

Our experience has shown that the use of electrophoresis for the treatment of post-injection aseptic abscesses of muscle tissue using medicinal solutions of 2.4% - 5.0 ml diluted in 0.5% - 5 ml novocaine and introduced for 10 days into the gluteal muscles, improved microcirculation in the area of formations, reduced swelling and pain at the injection site. Thus, patients could continue treatment with capreomycin, kanamycin and amikacin for the entire course (from 6 to 8 months).

But this experience was not effective in patients who received injection antibiotics repeatedly, since the ECHO picture revealed increased echogenicity of the oval-shaped structure, with the absence or partial blood filling. And in patients receiving these drugs for the first time, after using this method, blood circulation improved, infiltrates at the injection site decreased.

Patients for whom this method did not produce results had to undergo injections into the thigh muscle and electrophoresis in this area.

CONCLUSION

Most patients, after successful administration of electrophoresis with euphyllin, felt better, discomfort after receiving injections decreased, and refusal to use the drug decreased.

This physiotherapeutic technique can be used for the rehabilitation of muscle tissue in patients who have to receive intramuscular injections for a long time for various inflammatory and systemic diseases.

This experience also shows that it is possible to treat post-injection aseptic abscesses of muscle tissue in the initial stages of development without surgical intervention.

The negative aspects of this experiment are the impossibility of using it for purulent abscesses or abscesses of unclear etiology.

REFERENCES:

1. Stochino C., Villa S., Zucchi P., Parravicini P., Gori A., Raviglione M.C. Clinical characteristics of COVID-19 and active tuberculosis co-infection in an Italian reference hospital. EurRespir J. 2020.
2. Rajamanickam A., Rajamanickam A., Kumar NP, Padmapriyadarsini C., Nancy A., Selvaraj N., Karunanithi K., Munisankar S., Shrinivasa BM, Renji RM, Ambu TC, Vijayalakshmi V. 2021.
3. Chronic tuberculosis co-infection is associated with heightened levels of humoral, cytokine and acute phase responses in seropositive SARS-CoV-2 infection. Journal of Infection. 2021.