INTRABONE BLOCKADE IN INTERVERTEBRAL HERNIATION

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Introduction

Intervertebral herniation is one of the most common spinal disorders significantly affecting patients' quality of life. Millions of people worldwide suffer from chronic pain syndromes caused by this pathology. The prevalence of intervertebral herniation is increasing, particularly among individuals of working age, making it a pressing medical and socio-economic issue. Chronic pain leads to decreased physical activity, reduced productivity, and psychological distress, further exacerbating patients' overall health status.

Keywords: Intrabone blockade, intervertebral herniation, hydrocortisone, lidocaine, pain management.

Despite the availability of various treatment methods, including pharmacotherapy, physiotherapy, and surgical interventions, their efficacy is not always satisfactory. Many conservative approaches fail to provide long-term relief, while surgical interventions carry risks of complications and prolonged recovery periods. In this context, there is a growing interest in minimally invasive techniques that can offer effective pain relief with fewer side effects.

Intrabone blockades (IBBs) represent one such promising method. This innovative approach targets pain at its source by delivering medications directly to the affected area, offering rapid and sustained relief. Given the limited data on the application of IBBs for intervertebral herniation, this study aims to evaluate their effectiveness, focusing on the combined use of hydrocortisone and lidocaine.

Objective

To assess the impact of intrabone blockades on pain intensity and quality of life in patients with intervertebral herniation.

Materials and Methods

The study was conducted at the Andijan State Medical Institute clinic from 2022 to 2023. Sixty patients (40 women and 20 men) aged 30 to 66 years were included. The average duration of the disease was 8.2 ± 6.4 months. The treatment course comprised 10 procedures performed daily over 10 days.

Medications used for the blockade:

Hydrocortisone as the anti-inflammatory agent.

Lidocaine as the anesthetic.

The procedures were performed under ultrasound guidance. Effectiveness was assessed using the Visual Analog Scale (VAS) for pain and a quality-of-life assessment scale.

Table 1. Demographic characteristics of the patients:

Parameter	Value
Total number of patients	60
Women	40 (66.7%)
Men	20 (33.3%)
Age (mean ± SD)	48.2 ± 9.6 years

Results

After the treatment course, most patients reported significant pain reduction. The average VAS score decreased from 7.8 ± 1.3 to 3.1 ± 0.9. Quality-of-life improvements were observed in 85% of patients. Complaints of moderate pain persisted in only 10% of the participants. No complications related to the procedure were recorded.

Table 2. Dynamics of pain intensity (VAS):

Period	Mean VAS Score
Before treatment	7.8 ± 1.3
After 5 procedures	5.2 ± 1.1
After 10 procedures	3.1 ± 0.9

Table 3. Quality-of-life improvement:

Period	Improvement Percentage
After 10 procedures	85%

Discussion

The results confirm the effectiveness of intrabone blockades in managing pain syndromes caused by intervertebral herniation. Hydrocortisone contributed to reducing inflammation, while lidocaine provided rapid anesthetic relief. The absence of complications indicates the high safety of this method when the technique is properly executed.

This study highlights the potential of IBBs as a minimally invasive technique for pain management in patients with intervertebral herniation. However, it is essential to note that the study had a limited observation period. Further research is required to evaluate the long-term outcomes of this method and its applicability across diverse patient populations.

Conclusion

Intrabone blockades using hydrocortisone and lidocaine are an effective and safe method for treating pain syndromes associated with intervertebral herniation. Further studies are recommended to optimize the treatment approach and expand indications for its use.

References

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