CHRONIC PAIN IN PARKINSON'S DISEASE: COMPARATIVE EFFECT OF ADVANCED THERAPIES

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INTRODUCTION

Non-motor symptoms in Parkinson's disease (PD) represent a key component of the clinical picture. Among these, pain is common and multifactorial, showing variable characteristics (nociceptive, neuropathic, dystonic) and having a significant impact on quality of life [1]. Oral therapy commonly used to alleviate motor symptoms often does not significantly influence pain symptoms [2].

In the advanced stages of the disease, both invasive and non-invasive treatment methods can be used. These include Deep Brain Stimulation (DBS), intrajejunal L-Dopa infusion (LCIG), and subcutaneous infusion of Apomorphine or Levodopa. Advanced therapies in PD can modulate pain as well as motor symptoms. We present a series of five patients with advanced PD treated with advanced therapies, evaluated using standardized scales for clinical pain assessment [3].

MATERIALS AND METHODS

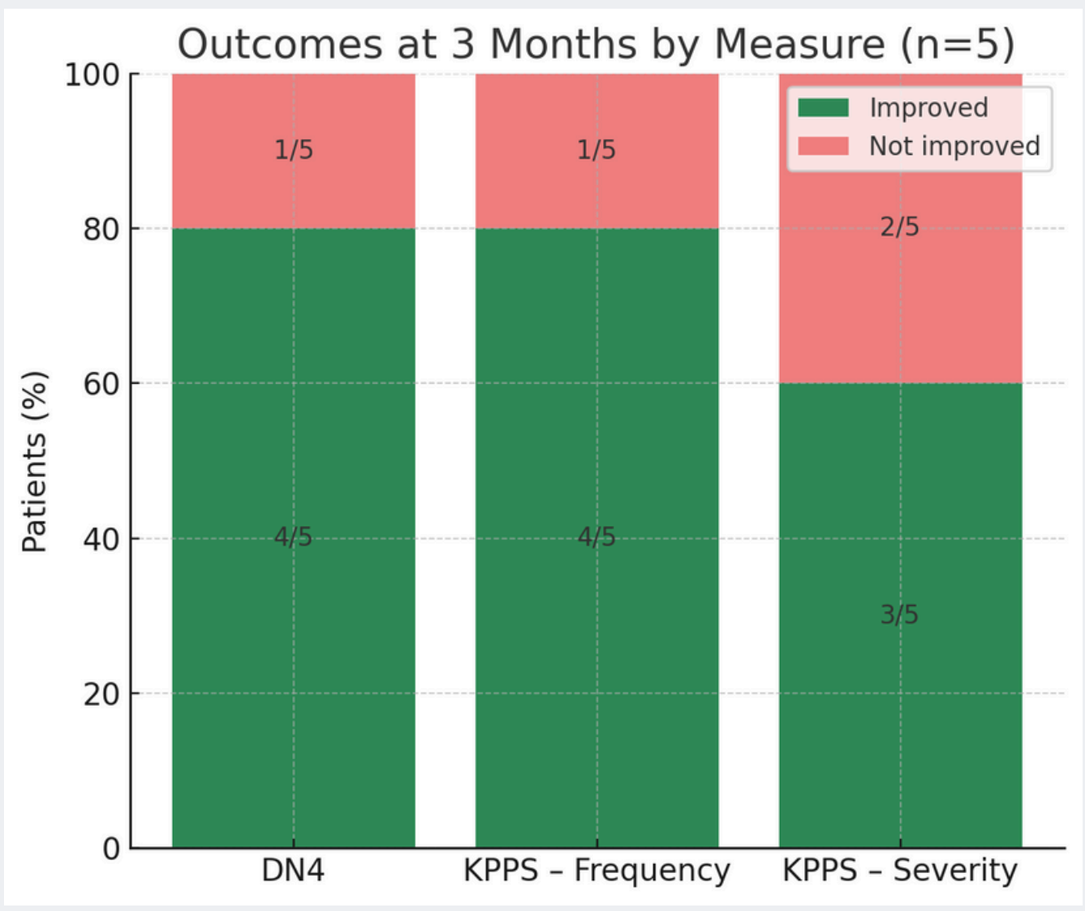
We studied seven patients with advanced Parkinson's disease (PD), with a mean disease duration of 6.5 years, all presenting motor and non-motor fluctuations that were poorly responsive to dopaminergic therapy. Two patients discontinued follow-up for personal reasons unrelated to treatment. The advanced therapies used in our patients included: 1) continuous subcutaneous infusion of levodopa (n=2) or apomorphine (n=2), and 2) Deep Brain Stimulation (DBS, n=1). Pain was mainly reported in the lower limbs, hands and feet, the left side of the body, and in the lumbosacral region with distal involvement. Cervical dystonic pain with a referred visceral component was also described. The following scales were used for pain assessment: King's Parkinson's Disease Pain Scale (KPPS) – to assess frequency and severity; Douleur Neuropathique 4 (DN4) – to evaluate neuropathic characteristics; Parkinson's Disease Questionnaire-39 (PDQ-39) – to assess quality of life. Assessments were performed one week before treatment, and at one and three months after treatment. Analgesic therapy remained unchanged throughout the study.

Table – Clinical Results at 3 Months

Scale / Parameter	Observed outcome	Number of patients (n=5)
DN4	Score reduction	4
	Stable or slightly worse	1
KPPS – Pain episode frequency	Decrease	4
	Stable	1
KPPS – Pain severity	Reduction	3
	Stable	1
	Slight improvement	1
PDQ-39 (Quality of life)	Improvement (toward 'never/occasionally' categories)	3
	Stable	1
	Increase	1

RESULTS

At three months, we observed an overall improvement in pain. The DN4 score decreased in four out of five patients (clinically significant in three), remained stable or slightly worsened in one. The KPPS showed a reduction in the frequency of painful episodes in four patients and a decrease in severity in three; one patient remained stable, while another showed slight improvement. The PDQ-39 revealed a shift toward less frequent response categories ("never/occasionally") across several domains in three patients, stability in one, and an increase in one. When analyzing the data by treatment type, an improvement in DN4 scores was observed across all advanced therapies used.



CONCLUSIONS

Advanced therapies for Parkinson's disease have a positive impact on chronic pain associated with PD. Among the treatments evaluated, DBS appears to show greater efficacy. Although the results are still preliminary and evolving, the initial data suggest that advanced therapies may represent a valuable option for patients suffering from disabling chronic pain related to PD, a condition that nonetheless remains challenging to manage.

REFERENCES

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