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CAN A PROTOCOL REPLACE MANDATORY PSYCHOLOGICAL ASSESSMENT FOR WORKUP OF NEUROMODULATION THERAPIES FOR PAIN?

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Introduction

Psychological comorbidities can adversely affect the outcome of neuromodulation (NM) therapies for pain. A psychological assessment is recommended prior to implantation of NM therapies1 but it can cause delays. The objective of this study was to compare the outcomes of NM trials and implants in patients who bypassed an in-person psychological assessment (Fast-Track cohort: FT) versus those who had this assessment (Psychological Assessment cohort: PA) during the study period from July 1, 2017 to December 31, 2020 based on an algorithm proposed by our centre.

Materials and Methods

Pre- and post-NM trial data was collected from patients undergoing percutaneous SCS trials. Pre-defined thresholds were used for the following instruments to decide on the need for an in-person psychological assessment : PCS, GAD-7, PHQ-9, ORT/ SOAPP-R, and a positive response to any of the items on a mental health checklist (Fig. 1). Patients screened positive for any of these criteria underwent an in-person psychological assessment with or without further psychological intervention. Patients who screened negative (FT cohort) proceeded directly to an NM trial.

Results/Case Report

171 patients underwent NM trials during the study period with 114 patients in the PA group and 57 patients in the FT group. 72% (82/114) patients in the PA group and 70% (40/57) patients in the FT group had a successful SCS trial (p=0.8). Data available in 78 patients at 6 to 12 months following the implant showed that 48.15% (13/27) patients in the FT cohort and 47.06% (24/51) patients in the PA cohort had 30% or greater reduction in pain scores from pre-implant levels (p=0.9). Analysis of pre-NM trial data is presented in Table 1.

Discussion

An algorithm incorporating pre-defined thresholds on validated questionnaires and a mental health checklist can be used to identify patients who do not need a formal in-person psychological assessment without a negative impact on outcomes of NM therapies for pain. This can help reduce wait-times and

optimize utilization of healthcare resources.

References

Grinberg et al. A revised psychosocial assessment model for implantable pain devices to improve their evidence basis and consensus with updated pain management guidelines. Pain Management. 2019;9(2):139-149.

Disclosures

No

Tables / Images

Figure 1.

Screening protocol for neuromodulation based on validated questionnaires and a mental health checklist. GAD-7: Generalized Anxiety Disorder 7-item scale; ORT: Opioid Risk Tool; PCS: Pain Catastrophising Scale; PHQ-9: Patient Health Questionnaire-9 module for depression; SOAPP-R: Screener and Opioid Assessment for Patients with Pain-Revised.

Algorithm for in-person psychological assessment cohort and fast track cohort.

Table 1. Baseline characteristics of patients in the two cohorts – Fast-Track and in-person Psychological Assessment. Data are mean ± standard deviations or numbers (percentages).

	Fast Track (n=57)	Psych Assessment (n=114)	p-value
Age in years	56.6 ± 13.6	50.8 ± 12.6	0.004
Duration of pain in years	10.2 ± 9.7	8.6 ± 8.5	0.302
NRS score (0-10) for average intensity of pain	7.0 ± 1.3	7.1 ± 1.4	0.557
Pain diagnosis			0.322
- FBSS	23/46 (50%)	61/97 (63%)	
- CRPS	6/46 (13%)	8/97 (8%)	
- Neuropathic pain syndrome	17/46 (37%)	28/97 (29%)	
Incidence of smoking	6/45 (13%)	32/103 (31%)	0.023
Incidence of history of emotional/physical abuse	5/50 (10%)	28/99 (28%)	0.011
Incidence of history of anxiety or depression	23/50 (46%)	74/94 (79%)	<0.001
Incidence of medication use for anxiety or depression	21/50 (42%)	65/94 (69%)	0.002
Incidence of self-harm	0/50 (0%)	10/93 (11%)	0.016
ODI score (0-100)	23.0 ± 7.7	29.0 ± 6.9	<0.001
GAD-7 score (0-21)	4.4 ± 3.7	10.9 ± 5.7	<0.001
PHQ- 9 score (0-27)	6.2 ± 4.4	14.7 ± 5.9	<0.001
PCS score (0-52)	19.6 ± 11.2	31.7 ± 12.3	<0.001
Incidence of opioid use	22/51 (43%)	71/106 (67%)	0.004
Risk of opioid misuse (ORT / SOAPP-R)			0.001
- Low	31/44 (70.45%)	33/88 (37.5%)	
- Moderate	11/44 (25%)	35/88 (39.77%)	
- High	2/44 (4.55%)	20/88 (22.73%)	

CRPS: Complex Regional Pain Syndrome; FBSS: Failed Back Surgery Syndrome; GAD-7: Generalized Anxiety Disorder 7-item scale; NRS: Numerical Rating Scale; ODI: Oswestry Disability Index; ORT: Opioid Risk Tool; PCS: Pain Catastrophising Scale; PHQ-9: Patient Health Questionnaire-9 module for depression; SOAPP-R: Screener and Opioid Assessment for Patients with Pain-Revised