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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 Catastrophizing 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.

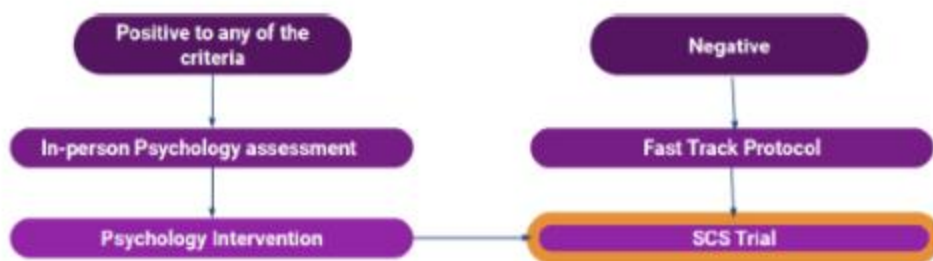


Table 1. Baseline characteristics of patients in the two cohorts – Fast-Track and in-person Psychological Assessment. Data are mean \pm standard deviations or numbers (percentages).

	Fast Track (n=57)	Psych Assessment (n=114)	p-value
Age in years	56.6 \pm 13.6	50.8 \pm 12.6	0.004
Duration of pain in years	10.2 \pm 9.7	8.6 \pm 8.5	0.302
NRS score (0-10) for average intensity of pain	7.0 \pm 1.3	7.1 \pm 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 \pm 7.7	29.0 \pm 6.9	<0.001
GAD-7 score (0-21)	4.4 \pm 3.7	10.9 \pm 5.7	<0.001
PHQ-9 score (0-27)	6.2 \pm 4.4	14.7 \pm 5.9	<0.001
PCS score (0-52)	19.6 \pm 11.2	31.7 \pm 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 Catastrophizing Scale; PHQ-9: Patient Health Questionnaire-9 module for depression; SOAPP-R: Screener and Opioid Assessment for Patients with Pain-Revised