

Updated perspectives on occipital nerve stimulator lead migration: case report and literature review.

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Abstract

OBJECTIVES: Patients with occipital neuralgia are often refractory to or intolerant of standard pharmacological and interventional management strategies. Although occipital nerve stimulation (ONS) may provide a unique alternative for such cases, a steep technical learning curve still exists. Lead migration (LM) is among the most challenging issues facing implanters performing ONS implantation. We present an unusual case of LM after ONS implantation and discuss technical aspects for successful revision.

METHODS: A retrospective review of medical records and fluoroscopic images was conducted to provide a case report of ONS LM and revision. A PubMed online search for the keywords occipital, stimulation, migration, and revision was also performed for literature review.

CASE REPORT: A 35-year-old man with refractory occipital neuralgia had loss of greater occipital nerve paresthesia coverage and worsened occipital headaches 11 months after ONS implantation using a midline approach. Fluoroscopic imaging confirmed lateral LM. Although most LMs occur in the lateral-to-medial trajectory, this case was unique in that LM occurred from a medial-to-lateral trajectory despite using current standard safeguards.

DISCUSSION: In an era in which reducing health care expenditures is becoming increasingly important, current complication rates could curtail future acceptance and utilization of ONS. This fact and our case report underscore the importance of a continued drive toward technical advances and a reduction in complications associated with this important treatment modality. Further prospective investigation into the mechanism of action, mechanism of complications, optimization of surgical techniques, and long-term efficacy is warranted.