



Demonstrated Feasibility of Intrathecal Drug Delivery for Chronic Pain in a Patient with Morvan's Syndrome

A Case Report

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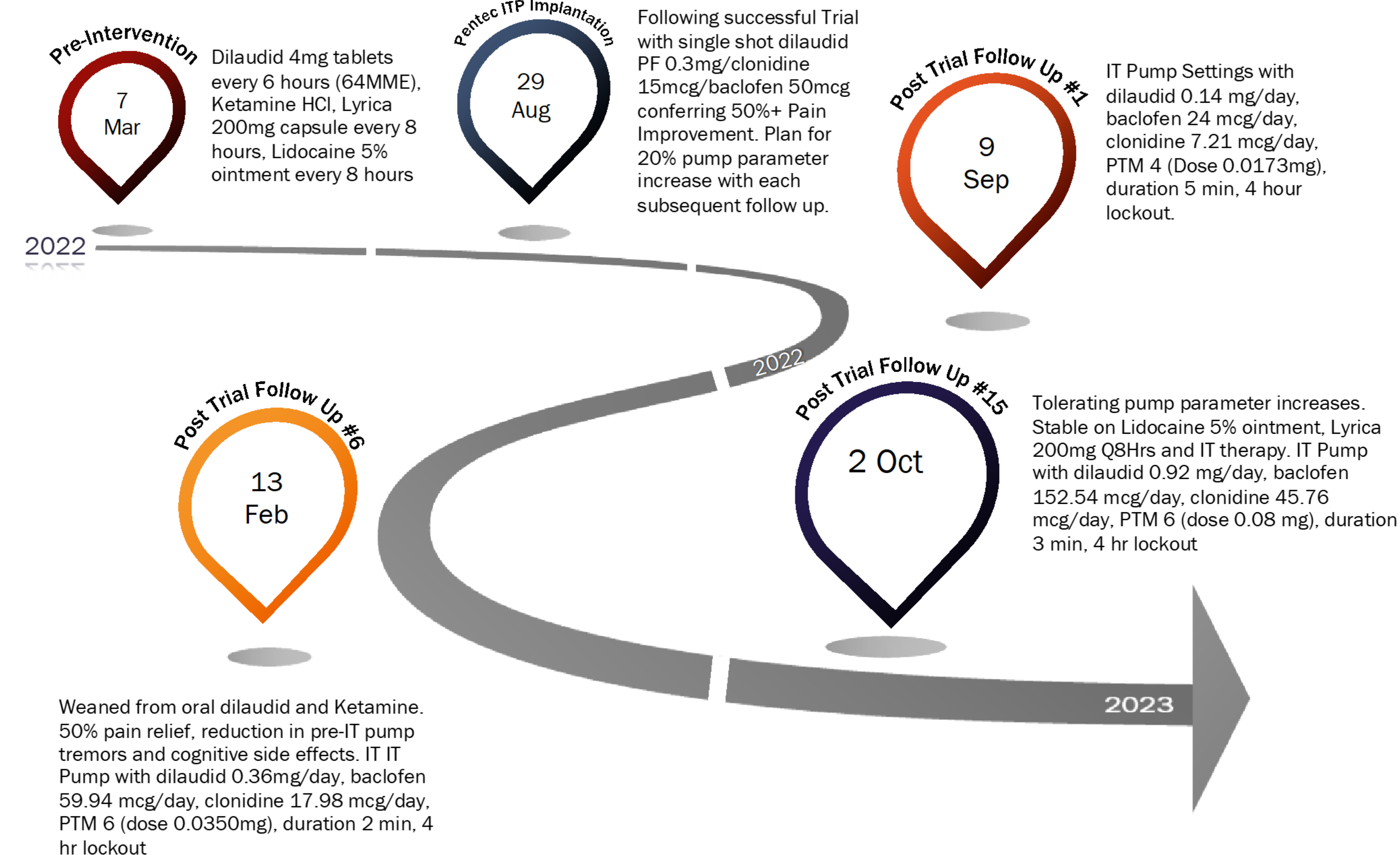


Context

- Morvan's Syndrome (MoS) is a rare autoimmune disorder associated with antibodies against the voltage gated potassium channel complex resulting in symptoms of dysautonomia, encephalopathy and peripheral nerve hyperexcitability. [1]
- Standard of care for MoS itself, including immunosuppression, plasma exchange and the use of anti-epileptic agents, have inconsistent treatment outcomes. [3]
- An interventional modality that can reduce systemic medication toxicity while optimizing treatment efficacy is the use of intrathecal drug delivery (IDD) systems

Case Description

- 44-year-old male with seronegative Morvan's Syndrome who presented to pain clinic as a referral to address complex regional pain syndrome (CRPS).
- Patient's exam was more consistent with peripheral nerve hyperexcitability and neuropathic pain from MoS.
- Intrathecal drug delivery (IDD) was trialed using a combination of hydromorphone, clonidine and baclofen which proved effective.



Discussion:

Prior treatment history demonstrated limited response to phentermine, carbamazepine, phenytoin, and plasma exchange. Active medications for this patient included oral pregabalin, baclofen, tizanidine, ketamine, and short acting hydromorphone. In the setting of increasing opioid tolerance, alcohol use disorder and concern of the sedating nature of polypharmacy superimposed on cognitive sequelae of MoS, interventional options for pain management were explored. Decision was made to trial an intrathecal injection with hydromorphone, baclofen and clonidine which conferred clinically significant pain relief. The addition of clonidine and baclofen may have had additional therapeutic utility in management of dysautonomia and neuromyotonia.

Discussion (continued):

An intrathecal pump was subsequently implanted, and drug delivery was regularly titrated. The patient tolerated the implantation and titration well and drug delivery continued to be increased without side-effects limiting dosing. This underlies the advantage of intrathecal delivery in contrast to the higher doses of oral hydromorphone and baclofen required to mitigate its extensive first pass metabolism. The patient ultimately reported significant improvement in range of motion, stiffness and pain.

Conclusion

For patients with MoS, with which cognitive symptoms often co-exist, IDD can be a well-tolerated interventional modality that reduces the burden of sedating pain medications and confers sustainable pain relief.

References

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