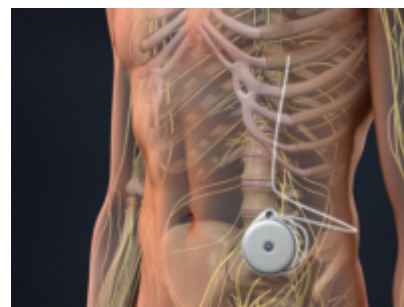


Intrathecal morphine for Restless Legs Syndrome



For those who suffer from a medically refractory [Restless Legs Syndrome](#) (RLS), [intrathecal morphine](#) treatment has been shown to be effective. The aim of a retrospective study of Steensland et al. was to investigate efficacy, complications and side effects in patients treated over several years with an [implantable pump](#). A comparison was done to a group of patients treated with a similar pump system due to [spasticity](#).

The charts of ten patients with severe or very severe RLS have been reviewed. These patients have received an intrathecal drug delivery system during 2000 -2016. To compare the rate of [complications](#), a control group of 20 patients treated with [intrathecal baclofen](#) due to spasticity was included in the study. Their time of treatment corresponded to the RLS patients'.

The severity of symptoms related to RLS decreased significantly after treatment. Doses required ranged from 68 to 140 µg/day. Two cases of side effects were detected; one case with nausea and dizziness and one case with headache and fatigue. The rate of mechanical-, infectious- and other complications were similar between the two groups.

In light of the decrease in symptom severity and the low rate of side effects, intrathecal morphine can be considered an adequate treatment for those suffering from medically refractory RLS. The occurrence of complications did not differ between subjects with RLS and spasticity ¹⁾.

Case reports

Three patients with medically refractory RLS received an implanted pump for delivery of intrathecal morphine. Severity of RLS and self-assessed health were rated using the International Restless Legs Syndrome Study Group (IRLSSG) rating scale and the Short Form health survey (SF-36). Assessments were made preoperatively and after 6 months of follow-up.

Preoperatively two patients had very severe RLS, scoring 35 and 36 on the IRLSSG rating scale, and one patient had severe RLS (score, 26). All three patients were free of symptoms of RLS post-operatively and also at the 6-month follow-up. The daily doses of intrathecal morphine ranged from 73 to 199 µg. Results from the SF-36 health survey showed that all three patients had a better physical health compared to before surgery.

Intrathecal morphine may be efficient in the treatment for medically refractory RLS. All three patients became completely free of symptoms, and there was also improvement in self-perceived overall

health ²⁾

In 2012 case reports of 4 patients documented excellent results with short-term use of intrathecal opioids also in RLS ³⁾.

In 2008 Ross et al. reported the successful use of low-dose [intrathecal morphine](#) in a severe case of restless legs syndrome refractory to medication.

The surgery was complicated by extreme restlessness in the recovery room resulting in withdrawal or breakage of the catheter on multiple occasions. Relief of symptoms was lost with each catheter malfunction. They describes the possible origin of this complication and a solution to the problem resulting in the successful control of symptoms for 7 months since the last surgery. ⁴⁾.

They are, however, wrong in their statement that this is the third published case of this particular treatment. In an article in the Swedish medical journal *Lakartidningen* ⁵⁾, Lindvall et al. previously accounted for 7 patients with refractory restless legs syndrome who were successfully treated with intrathecal morphine. An abstract in English is available through the official web site of this journal, and the article is indexed by PubMed. The 7 patients were treated at 3 hospitals in the northern region of Sweden, which is covered by the neurosurgical department of Umeå University Hospital ⁶⁾.

In 2002 two patients with incapacitating symptoms from restless legs syndrome, not adequately responding to conventional treatment with dopaminergic drugs, were implanted with a pump device (Isomed) for intrathecal delivery of morphine and bupivacaine. The treatment resulted in total resolution of all symptoms with few side effects ⁷⁾.

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