

# Intrathecal opioid pump

[Implantable pumps](#) for the delivery of intrathecal [morphine](#) have become a common option for administering opiate medication for the management of pain in patients with terminal cancer.

[Intrathecal](#) (IT) [opioid pumps](#) are one therapeutic cornerstone of refractory [non malignant pain syndromes](#). The aim of a study of Sommer et al., was to evaluate efficacy, surgical and pharmacological complications of [intrathecal pumps](#) beyond a time span of 10 years.

In this retrospective single-center cohort study, 27 patients (14 female, 13 male, age  $64.0 \pm 8.9$  (median, 1 SD) yrs) were identified. Pain intensity using the numerical rating scale ([NRS](#)), pain and IT pump characteristics, and complications were analyzed. The [German Pain Questionnaire](#) was used to investigate the physical and mental health status.

Overall time of IT therapy from first implantation to last follow-up was  $20.4 \pm 6.0$  yrs. Time to implantation of the second pump (n=18) was  $10.0 \pm 5.3$  yrs, between the second and third pump (n=6)  $6.5 \pm 2.7$  yrs, and two patients received their 4th pump six years later. Before implantation, NRS was  $9.0 \pm 0.9$ , one year after implantation  $7.0 \pm 1.8$  and  $4.0 \pm 2.3$  at the last follow-up. IT drug dose remained stable after 3 years. Opioid intoxications occurred in three patients (10%). One patient (3%) underwent revision surgery due to a catheter infection. Drug side effects occurred in 4 patients (14%). Our patient group has pain-related restrictions in physical activities with menial impact regarding mental and emotional stress.

Even after a time span of over 15 years and several exchanges of pump systems, pain intensity is still reduced. After 3 years, IT drug dose remained unchanged with low side-effects and complication rates <sup>1)</sup>.

<sup>1)</sup>

Sommer B, Karageorgos N, AlSharif M, Stubbe H, Hans FJ. Long-term outcome and adverse events of intrathecal opioid therapy for non-malignant pain syndrome. Pain Pract. 2019 Jul 10. doi: 10.1111/papr.12818. [Epub ahead of print] PubMed PMID: 31291509.

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