464294 - CONTINUOUS SCIATIC NERVE BLOCK IN PHANTOM LIMB PAIN PREVENTION

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Introduction: Approximately 60-70% of amputees suffer from phantom limb pain in the first year after amputation(1). Studies on the impact of an epidural in its prevention contradict each other(2,3). Continuous sciatic nerve block has been evaluated in the per and post-operative settings without much benefits(4,6). However, no study has ever assessed the influence of a continuous sciatic nerve block pre, per and post-op on the incidence of painful phantom limb and that is what was evaluated in the present study.
Methods: Following local ethics committee approval and written informed consent, we conducted a prospective study in 18 patients. A visual analogue scale (VAS 0-10)was used to rate the pain in the affected limb before amputation, the stump and the phantom limb at day 1, 2, 3, 7, 30, 90 and 24 months. The blocks were achieved using the Labat technique with an isolated needle and a stimulant catheter (Stimucath®). 20ml of ropivacaine 1% were injected, followed by a 10ml/h perfusion. Antiplatelets drugs were not considered as a contraindication. In the case where IV heparin was used, it was withheld for 4hrs before the technique and resumed afterwards. The amputation was done under general or neuraxial anesthesia but the perfusion through the sciatic catheter was maintained during and after surgery. The differences in the VAS score were measured using the Wilcoxon test.
Results: Mean patient age was 74 ± 12 years and there were 4 women and 13 men. Median VAS pain around installation of the sciatic nerve block was 4,5 before and 0 after the block. The catheters were placed 40 ± 26hrs before amputation and 56 ± 30hrs post-op. VAS for day 1 to 730 are shown in the graph.
Discussion: Our study showed an incidence of phantom limb pain about 25-30%. The classically reported incidence is 60-70%. This suggests that our method could lower the incidence of painful phantom limb. Moreover, it has less contraindications than the neuraxial block in a setting where patients are often anticoagulated. Our sample size was comparable to other studies on the subject. It was proposed that the mechanism of action of the neuraxial block is different than that of the peripheral nerve block and that the latter could be beneficial in the phantom limb context(5). Our results support this hypothesis with an emphasis on continuity which had never been carried out before in the sciatic nerve block for phantom limb pain prevention.
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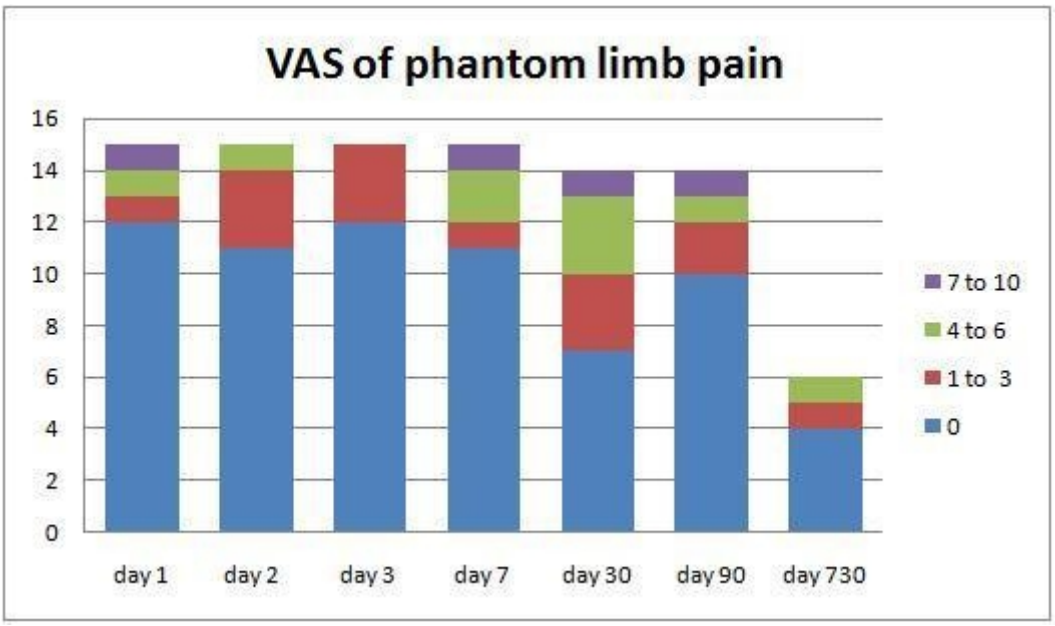
VAS of phantom limb pain
16
14
12
10
8
6
4
2
0
day 1
day 2
day 3
day 7
day 30
day 90
day 730
7 to 10
4 to 6
1 to 3
0