Pregabalin as adjunct in a multimodal pain therapy after traumatic foot amputation - A case report of a 4-year-old girl

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BACKGROUND AND PURPOSE
The purpose of this case report is to describe a multimodal pain therapeutic concept including the adjunct use of pregabalin in a 4.5 year-old child after forefoot amputation. Phantom limb pain and sensation is a complex pain syndrome that is difficult to treat and prevent. 70-75% of all children develop such a pain syndrome after amputation. We describe here a paediatric patient who underwent forefoot amputation following traumatic foot injury and received multimodal pain therapy including pregabalin.

METHODS
A 4.5 year-old otherwise healthy girl suffered severe injuries of the right foot and lower leg during a motor vehicle accident. Due to development of severe necrosis, forefoot amputation had to be performed during the hospital stay.

RESULTS
Initial pain therapy included paracetamol, ibuprofen, metamizol, morphine and fentanyl. With mounting pain and anxiety, regional anaesthesia of the distal sciatic nerve was administered in combination with a ketamine and morphine patient controlled analgesia pump (PCA). The peripheral blockade of the distal sciatic nerve was placed with the guidance of ultrasound and nerve stimulator. The PCA concept included a continuous basal rate combined with a bolus function. Although the regional anaesthesia was well positioned and functioning, there was inadequate pain control. The pain was described by the patient as short, highly intense and sharp sensations with intensity on the visual analogue scale (VAS) of 10 (out of 10). Furthermore, she suffered from anxiety episodes and sleep disturbance. The medical team decided to treat with pregabalin to resolve these issues while awaiting amputation (Lisfranc line). She received psychological counselling as adjunct treatment. This multimodal concept enabled an early and efficient pain reduction pre- and post-amputation and allowed for the possibility of a hospital discharge without any opioid pain medication.

CONCLUSION
The multimodal pain therapy including pregabalin was well tolerated, safe and highly effective in this case of traumatic limb injury and subsequent amputation. The use of pregabalin allowed significant pain and anxiety reduction for the patient.

IMPLICATIONS
Pregabalin is frequently used in adult patients for severe complex pain syndromes. There are only few reports of such adjunct medication (pregabalin) in paediatric pain syndromes. These reports focus mainly on the paediatric oncologic population. The case reported here encourages physicians to consider adjunct medications when treating complex pain, which are well established in the adult population. The benefits of such therapy in complex pain and anxiety can be extended to the paediatric population in select cases. Of course, one must always take into account that many routine medications used in children are well established but are off-label use. The authors are well aware of this problem and have conducted a critical literature review prior to pregabalin administration, including the search for randomized trials examining safety and tolerability. The parents or legal guardians of a minor must be thoroughly informed and consent to such a constellation of medical treatment.

type: journal paper/review (English)
date of publishing: 23-09-2017
journal title: Scand J Pain (17)
ISSN electronic: 1877-8879
pages: 146-149