Upper limb phantom pain – A case of difficult pain control

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Introduction

Phantom pain - present in
up to 70% of amputees

Complex physiology and
challenging treatment

One of the main causes
of acute pain

Clinical case

- ♀, 23 years old, 50 kg, ASA III
- PH: Femoral osteosarcoma (2010); bone metastization (proximal humerus – ulceration with resistant *P. aeruginosa* infection)
- Medicated with SOS transdermal fentanyl 75 µg/h
- She was proposed for a inter-thoraco-scapular amputation of the upper left limb

Balanced general anesthesia

- Fentanyl – 3 µg/kg bolus
- Ketamine infusion- 4 µg/kg/min
- Direct brachial plexus infiltration (supraclavicular) – Ropivacaine 0,75% 10 mL + Perineural catheter placement
- Paracetamol 1g, Metamizole 2g, Ketorolac 30 mg, Morphine 5mg

Intraoperative

On emergence:

- Phantom pain of the amputated limb (10/10)
- No relief after EV morphine and perineural ropivacaine 0,2% boluses

PACU

- Paracetamol 1g 4id EV
- Metamizole 1g 3id EV
- Pregabalin 50 mg
- Ketamine infusion 4 µg/kg/min

- Ropivacaine 0,2% 5 mL/h perineural infusion
- Morphine PCA 2mg/h + 1 mg bolus

Discharge after 48 hours with partial pain control (7/10)

Ward

- Paracetamol 1g 4id EV
- Metamizole 1g 3id EV
- Pregabalin 250 mg/day
- Duloxetine 60 mg id
- Ketamine infusion 9 µg/kg/min

- Ropivacaine 0,375% 10 mL 6id
- Morphine PCA 2mg/h + bólus 1 mg

Slow titration; Improvement on PO D10, after initiating psychological support and hypnosis

Discussion and Conclusion

Phantom pain is multifactorial and has a complex treatment. Morphine, gabapentinoids, ketamine and regional analgesia have proven efficacy as part of multimodal

Pharmacological treatment may not be effective.

Prevention and treatment of post-amputation pain with specific and directed interventions should be a main concern of the anesthesiologist.

Perioperative psychological support, and alternative therapeutics should be considered as part of a multimodal treatment scheme.

1. Warner NS, et al. Pain Pract. 2015;15(7):E76-E80.

2. Alviar M, et al. Cochrane Database Syst Rev Protoc. 2016;(1):1-52.