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Pain management at home after limb lengthening surgery in children

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Abstract

Introduction: Limb-lengthening procedures of the lower extremities may result in significant postoperative pain. Effective postoperative analgesia may improve the postoperative course, decrease the potential for adverse effects related to parenteral opioids, facilitate earlier recovery, and shorten hospital stays after these procedures.

Material and methods: We present a retrospective observational monocentric study of 333 patients,aged 4-22 years, weight 13-105 kg, ASA 2-3 with rare musculoskeletal diseases who underwent a limb lengthening surgery. Patients are treated and followed by the Acute Pain Therapy Service throughout the lengthening period monthly by phone, mail or personally or via telemedicine. The parameters observed are intensity of pain, sides effects of pain therapy, neuropatic pain, quality of life and sleep, malfunction of surgical devices.

Results: The disease treated with limb lengthening surgery are achondroplasy, emimelia, heterometry,esostosis disease, complex limb anomalies of upper and lower extremities. The period of pain management was 30- 300 days. NRS(FLACC) >4 is observed in 14,7% of the patients , side effects like pruritus, nausea , vomito are noticed in 2 % of patients, neuropatic pain in 2,1 %,sleep disturbances in 1,5 %, malfunction of surgical devices in 5,7 %.

Conclusions: During limb lengthening, patients experience a variety of pain types. Adequate pain control can be safely attained during limb lengthening with combinations of long and short acting opiates and other adjunctive medications. Attention must be paid to individualizing pain therapy based on pediatric pain severity and pediatric patient history.

Bibliography

1. Transition from acute to chronic pain after surgery Glare P, Aubrey K, Myles P S Lancet Vol 393 April 13, 2019
2. Pediatric perioperative pain management Frizzell et al Orthop Clin N Am 48 (2017) 467–480
3. Chronic postsurgical pain in children: prevalence and risk factors. A prospective observational study Batoz H British Journal of Anaesthesia, 117 (4): 489– 96 (2016)