

Results: 13,451 patients started treatment with LD-TD-BUP for non-malignant pain during the study period. Annual number of patients starting LD-TD-BUP increased from 3114 in 2006 to 5672 in 2008. Of the 13451 patients starting LD-TD-BUP during 2006–2008, 56% were dispensed more than one prescription and 21% became long-term users.

Among long-term users, 82% of patients with previous opioid use and 43% previously being opioid naïve co-medicated with other opioids and/or benzodiazepines.

Conclusion: In spite of a significant increase in number of new users of LD-TD-BUP, only one-fifth become long-term users. Most of them continued with short acting opioids and/or benzodiazepines. Thus the introduction of LD-TD-BUP has so far not met the obligations to stabilize long-term use of opioids without co-medication with other potentially addictive drugs.

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Prostaglandin E2 production in synovial tissue and acute post-operative pain after knee arthroscopy

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Postsurgical inflammation leads to sensitisation of “sleeping” nociceptors, which enhance pain perception and induce hyperalgesia. Prostaglandin E2 plays a central role in this process. Synovial microdialysis technique allows analyses of biological markers of local inflammation simultaneous with a close follow up of the patient's pain experience. Tissue injury (or surgery) initiates liberation of inflammatory mediators and hyperalgesic substances. This project is translational and aims at exploring the relationship between perceived acute postoperative pain and inflammation. Microdialysis of synovial tissue and pain score after arthroscopy is of special interest to study since the natural pain course and the local inflammation can be observed in patients with no analgesic therapy.

Methods: This is a clinical observational study of local inflammatory mediators and perceived pain in patients undergoing knee arthroscopy in general anesthesia with propofol, remifentanyl and fentanyl. Microdialysis of the synovial membrane was performed in all patients every 20 min for 140 min postoperatively (seven samples). At the same intervals PGE2 was measured and correlated with patients report of pain intensity on a 0–100 mm visual analogue scale (VAS).

Results: Five patients (1 female, 4 male) who did not receive any non-steroidal antiinflammatory drugs or paracetamol were included. The pain intensity was 1–34 mm VAS and the PGE2 levels were from 293 pg/ml to 5818 pg/ml. Maximum pain score (mean 23 and SD 12 mm VAS) and PGE2 levels (mean 2026 pg/ml and SD 1380 pg/ml) occurred about 40 min after surgery. Correlation analysis shows a significant correlation ($R = 0.48$, $p = 0.004$).

Conclusion: This pilot study indicates a positive correlation between postoperatively perceived pain and local PGE2 concentration.

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Girl presenting with oesophageal spasm pain after fundoplication

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Introduction: A previously healthy 19-year-old woman, who had symptoms of gastric-oesophagela reflux disease for over one year, was transferred to our specialist hospital three weeks post fundoplication operation at a local hospital. She had several episodes with severe retrosternal pain lasting minutes to hours which was stabbing in character. She persistently experienced what was thought to be episodes of oesophageal spasm associated with food intake or movement. She required gradually escalating doses of opioids, both transdermal, intramuscular and intravenous. She was started on a regime of transdermal opioids in addition to iv opioids for the acute pain episodes. This was later supplemented with a PCA pump. Despite the increase in pain and in CRP, the patient was continued on an opioid reduction regime initiated by the surgeons six weeks post surgery. Two months post fundoplication she developed respiratory failure.

Discussion: The patient had a prolonged and painful postoperative period after an elective fundoplication. Her retrosternal pain had lasted over a year prior to surgery, but postoperatively a spasmodic pain escalated substantially leaving her hospitalised. The symptoms were initially thought to be due to oesophageal spasm, but gastroscopy was normal and manometry showed normal contraction pressures in the oesophagus. It was discovered that she had right sided pleuritis that had developed into an empyema. She was intubated, sedated and initially treated with two chest drains before undergoing a right sided thoracotomy that removed the remaining pleural fluid areas and the postinfectious tissue. The exact mechanism of this complication is not known.

Conclusion: Oesophageal spasms after fundoplication is a known complication in about 1 in 1000 patients and is associated with intense spasmodic retrosternal pain. However, empyema also needs to be considered where postoperative pain persists. It is an extremely rare and painful complication.

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Epidemiology of persistent postoperative pain: Association of persistent pain and sensory abnormalities

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Background: The prevalence of persistent postoperative pain in the general population is poorly documented, but clinical studies indicate that the problem is common.

Aim: The aim of this study was (1) to assess the prevalence of persistent postoperative pain among individuals operated during the last 3 years in a general population and (2) to describe factors associated with chronic postoperative pain.

Materials and methods: As part of a cross-sectional health survey in the municipality of Tromsø, North Norway, all participants answered questions on surgery, persisting pain and sensory abnor-