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OP001 PROSPECT GUIDELINE FOR HAEMORRHOID SURGERY: A SYSTEMATIC REVIEW AND PROCEDURE-SPECIFIC POSTOPERATIVE PAIN MANAGEMENT RECOMMENDATIONS

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Background and Aims Haemorrhoidectomy is associated with moderate-to-severe postoperative pain. The aim of this systematic review was to assess the available literature and update previous PROSPECT (PROcedure SPECific Postoperative Pain ManagemenT) recommendations for optimal pain management after haemorrhoidectomy.

Methods A systematic review utilizing PROSPECT methodology was undertaken. Randomized controlled trials published in the English language from January 1, 2016 to February 2, 2022 assessing postoperative pain using analgesic, anaesthetic, and surgical interventions were identified from MEDLINE, EMBASE and Cochrane Database.

Results Of the 371 RCTs identified, 84 RCTs and 19 systematic reviews, meta-analyses met our inclusion criteria (total: 103 publications). Interventions that improved postoperative pain relief included: paracetamol and non-steroidal anti-inflammatory drugs or cyclooxygenase-2 selective inhibitors, systemic steroids, pudendal nerve block, topical metronidazole, topical diltiazem, topical sucralfate or topical glyceryl trinitrate, and intramuscular injection of botulinum toxin.

Conclusions This review has updated the previous recommendations written by our group. Important changes reside in abandoning oral metronidazole and recommending topical metronidazole, topical diltiazem, topical sucralfate, topical glyceryl trinitrate. Botulinum toxin can also be administered. Contemporary publications confirm the analgesic effect of bilateral pudendal nerve block but invalidate recommendations on perianal infiltration. The choice of the surgery is mostly left to the discretion of the surgeon based on his experience, expertise, type of haemorrhoids, and risk of relapse. That said, excisional surgery is more painful than other procedures.

OP002 PAK4 INHIBITOR REDUCES REMIFENTANIL-INDUCED POSTOPERATIVE HYPERALGESIA IN RAT

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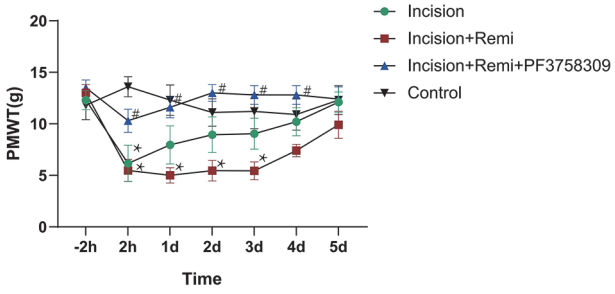
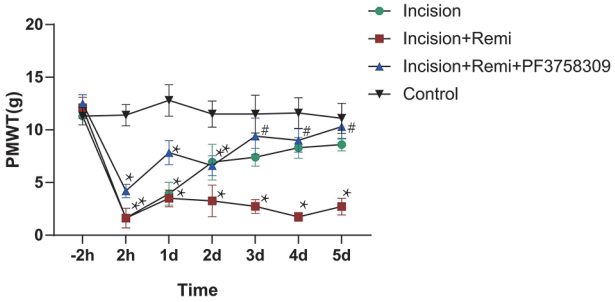
Background and Aims The purpose of this study was to evaluate the relationship between remifentanil-induced hyperalgesia (RIH) and p21 activated kinase4(PAK4) in the spinal dorsal horn of rats with incisional pain.

Methods Sprague-Dawley rats weighing 280-300g aged 9-11 weeks were divided into four groups (n = 12 each): control group(C), incisional pain group(I), incisional pain +remifentanil group(IR), incisional pain+remifentanil +PAK4 inhibitor group(IRP). Groups I and C received intravenous saline, while Group IR and IRP received intravenous remifentanil at dose of 1.2 μg·kg-1·min-1 for 90 minutes. PAK4 inhibitor PF3758309 10 nmol was intrathecally injected 30 minutes before surgery and once daily for five days after incision in group IRP, while the same intrathecal injection with DMSO in the other groups. The paw mechanical withdrawal threshold (PMWT) was measured respectively at 30 min before surgery and at 2 hours, 1 to 5 days after surgery. NLRP3 in spinal dorsal horn was detected by Western Blot.

Results PMWT decreased at 2 hours after surgery in the incisional side. PMWT of healthy foot only decreased in group I and IR at 2 hours after surgery. Compared with group IR, PMWT increased in group IRP at 3 days after surgery in incisional side, while at 2 hours in healthy side. This study indicates that PF3758309 could cut off the formation of RIH since 2 hours after surgery by modulating NLRP3 inflammasome activation conducted by PAK4 in spinal dorsal horn.



Abstract OP002 Figure 1 Paw mechanical withdrawal threshold test results of rats on the healthy foot Compare with group C, *P<0.05



Abstract OP002 Figure 2 Paw mechanical withdrawal threshold test results of rats on the incisional foot Compare with group C, *P<0.05