

Opioid-Free Anesthesia: Yes, it is possible

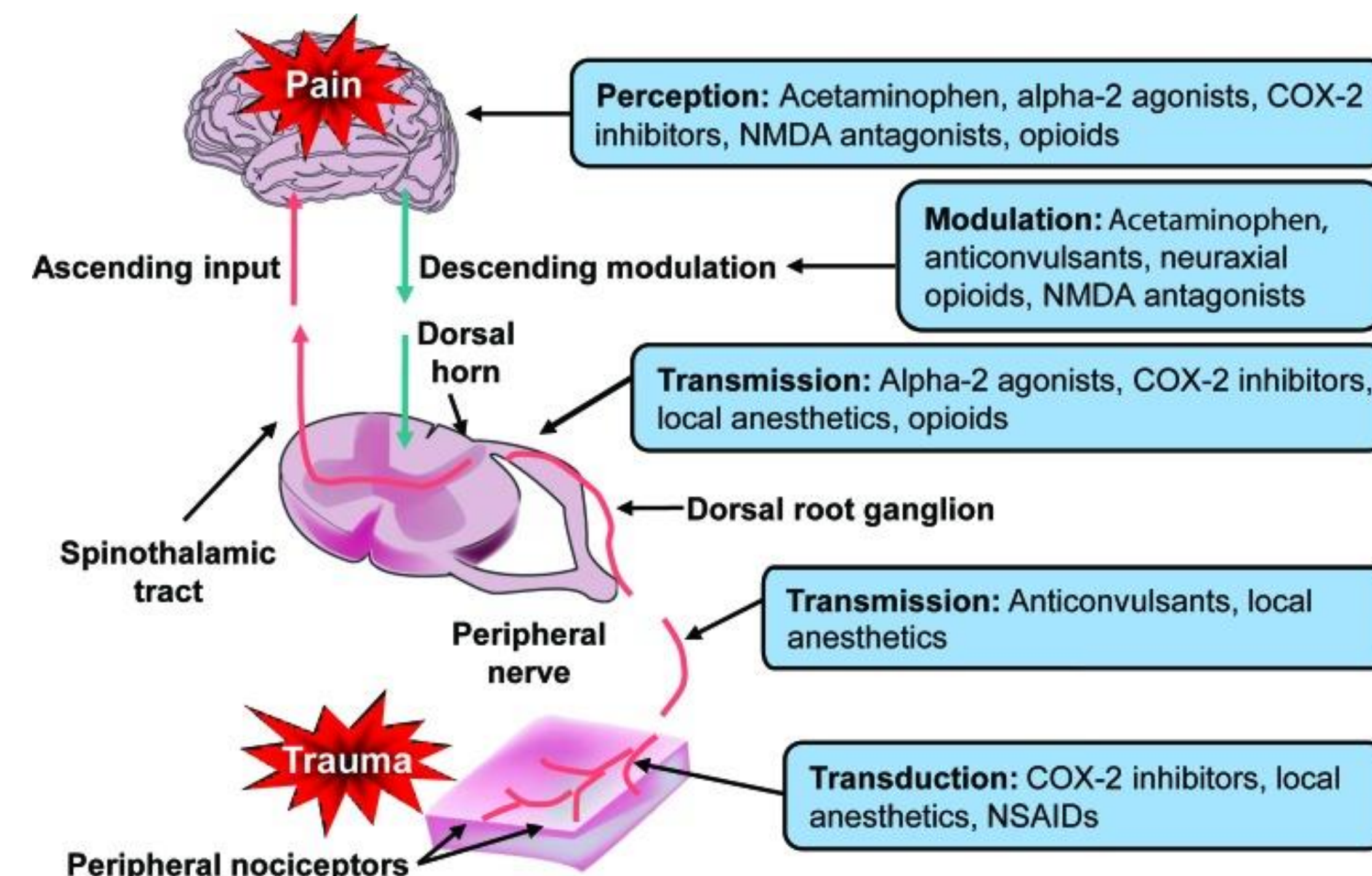
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INTRODUCTION

- First known opioid use dates to 3,400 B.C. in Mesopotamia with opium poppy
- Opioids are effective in multiple pathways for treatment of pain (transmission, modulation, and perception)
- Adverse effects of opioids include nausea, vomiting, constipation, respiratory depression, hyperalgesia, etc.
- Opioid-free anesthesia (OFA) may be a realistic method of delivering safe and effective anesthetics
- Like all anesthetics, planning and preparing type of anesthetic should be individualized to patient and procedure

FIGURE 1

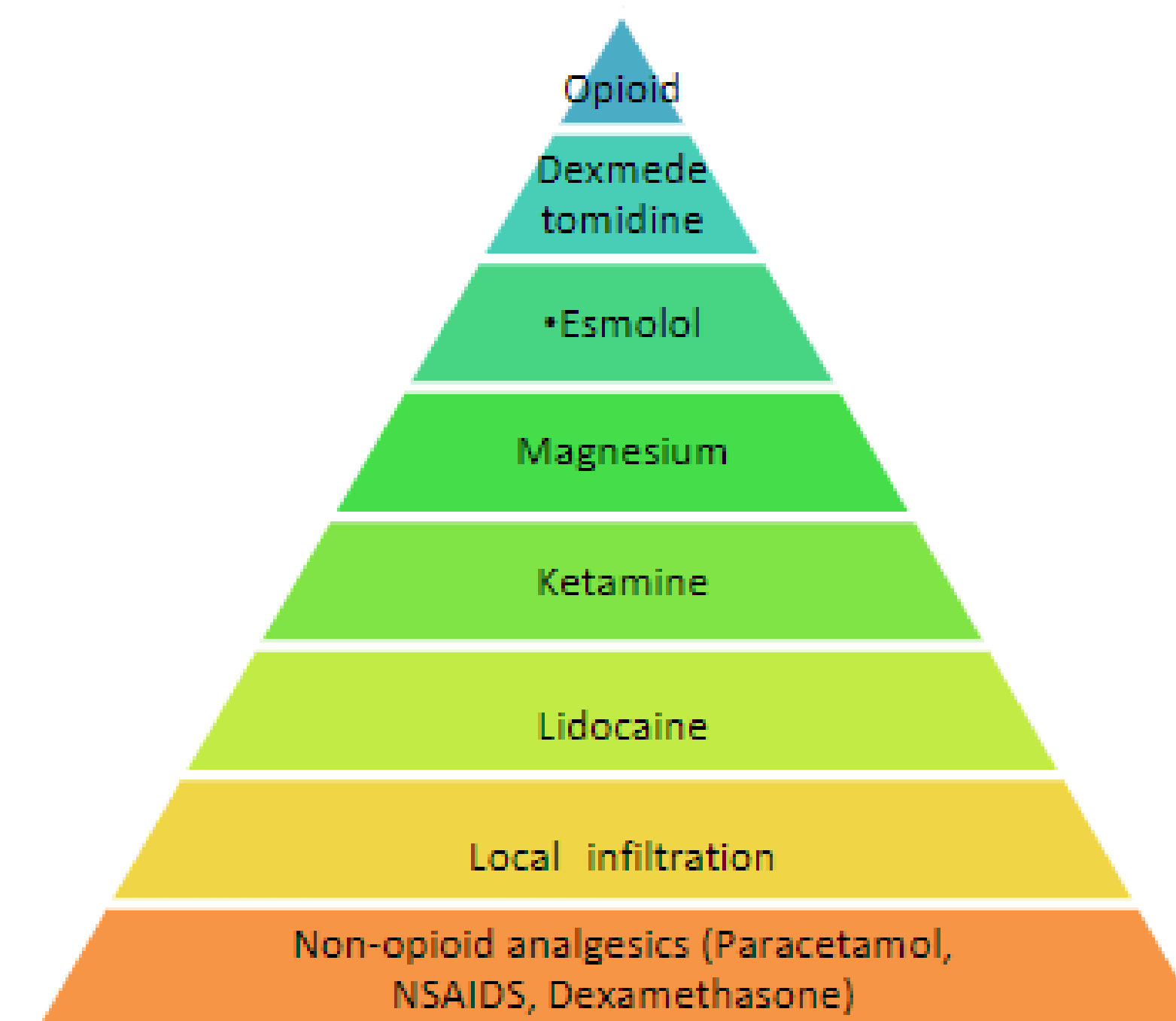


Location of action for multimodal analgesics.
Image obtained from *Europe PubMed Central*.

CASE OVERVIEW

- 67-year-old female with history of lumbar radiculopathy
- Presents for L4-5 transforaminal lumbar interbody fusion, decompression, and bilateral foraminotomies
- Patient seen in Anesthesia Preoperative Evaluation Clinic
- Noted patient allergy to “all opioids” with reaction of severe and intractable nausea and vomiting
- Patient is motivated and determined to avoid opioids throughout entire perioperative period
- Plan for opioid-free anesthetic as well as in post-operative period

FIGURE 2



Multimodal analgesic method. Image obtained from *Anesthesia, Pain & Intensive Care*.

ANESTHETIC MANAGEMENT

Intraoperatively

- Pre-induction scopolamine patch placed
- Successful induction and intubation with lidocaine, propofol, and succinylcholine
- Maintenance of anesthesia with propofol infusion
- Analgesia with ketamine infusion and intravenous acetaminophen
- Triple anti-emetics with dexamethasone, haloperidol, and ondansetron

Postoperatively

- Inpatient pain service consult in place who saw patient in the post-anesthesia care unit
- Continued ketamine infusion
- Started on scheduled pregabalin, cyclobenzaprine, acetaminophen, and lidocaine patch
- Adverse effects of ketamine infusion treated with first down titration of medication followed by as needed low dose lorazepam
- Escalation of care plan in place:
 - Increase ketamine infusion
 - Dexmedetomidine infusion
 - Diazepam
 - Lidocaine infusion
 - NSAID initiation after approval from surgical team

DISCUSSION

- Opioid-free anesthesia (OFA) may be a safe, effective, and reasonable approach to providing anesthetics to certain patient populations
- OFA limits oversedation, respiratory depression, PONV, and more
- Proven successful in lumbar spine and endoscopic gynecologic surgeries
- Particularly effective in patients who are opioid-naïve prior to surgery
- Enhanced recovery after surgery (ERAS) protocols are increasingly suggesting reduced or avoiding opioid consumption
- The Society of Opioid Free Anesthesia

REFERENCES

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