

A Case Of Opioid Rotation Medication Management Modality Used For Acute On Chronic Limb Pain

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Background

- In 2016 50 million U.S. adults identified having chronic pain and 19.6 million identified with high impact chronic pain¹.
- Opioid medications provide analgesic benefits and consequential and intolerable side effects.
- Opioid rotation is an alternative medication modality with the goal of improved analgesic effects and balancing the side effects that may come with using opioid medication².
- Opioid rotation is an underutilized modality of treatment that may help provide significant analgesic effects to the patient at lower morphine equivalence levels.
- Studies regarding opioid rotations in chronic pain are limited and should be explored further.

Materials and Methods

Patient informed consent was obtained for submission of a case report. All patient-protected health information has been de-identified; patient faces are entirely covered. This is a scientific abstract with no patient-protected health information. Patient identifying features are obscured. Therefore, per the University of California Irvine IRB policy, Case reports or case series of three or less individuals are not considered Human Subject Research, therefore University of California Irvine, IRB review is not required as stated by UCI IRB policy.

Case Presentation

- 55-year-old gentleman a with a history of chronic limb pain due to a history of advanced PAD and aortoiliac occlusion of his right lower extremity leading to a below-knee amputation in 2015 was admitted to UCI Medical Center presenting with acute on chronic limb pain 2/2 vascular occlusion of the left lower extremity.
- Patient's reported medication regimen included oxycodone 30mg q8h for over 10 years without substantial improvement of his pain. He rates his pain 9-10/10. He continues to take oxycodone 10mg at home prior to his admission.
- Opioid rotation from oxycodone 30mg q8h to morphine IR 30-45mg Q6h prn for pain control. He did not report any side effects from the switch of his short-acting opioid oxycodone to morphine IR.
- Upon interview with the patient, he reports significant improvement of his pain symptoms with the rotation from oxycodone to morphine IR rating his current pain a 6/10.

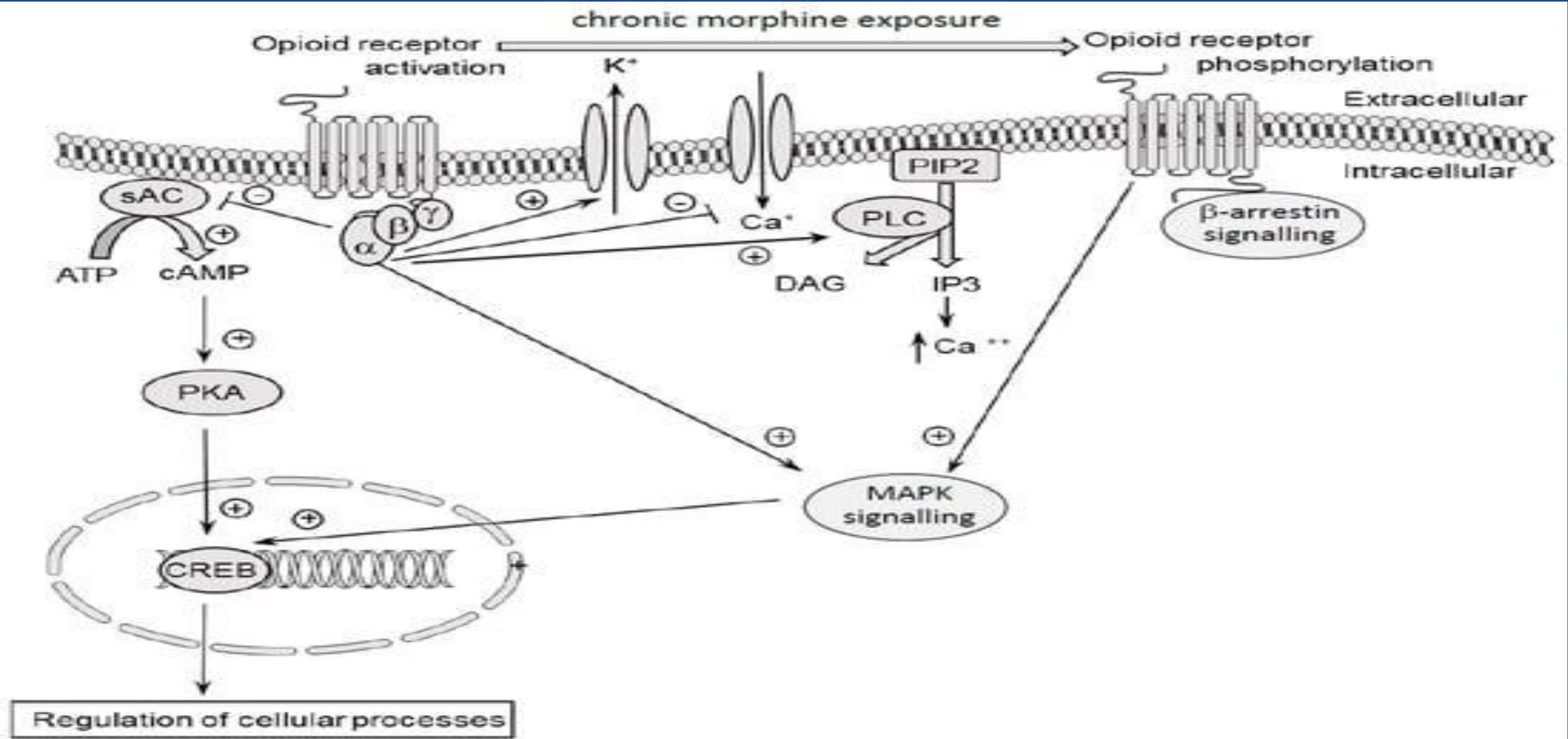


Figure 1. Morphine Molecular Mechanism of Action⁶

Discussion

- Opioid rotation is an underutilized modality to help decrease opioid-induced hyperalgesia and improve pain control³.
- Prior to opioid switching, the patient continued to report a significant pain rating of 9-10/10.
- After opioid rotation pain levels improved to 6/10 without adverse side effects noted.
- Clinicians must also account for the possibility of incomplete cross-tolerance among varied opioids. Studies have recommended a 25% to 50% dose decrease of the new opioid to enhance safety for the patient².
- 2004 Cochrane review stated prospective studies, retrospective studies and case reports with evidence suggesting opioid rotation as an effective modality⁴.
- A 2018 systemic review suggests a focus on higher quality randomized control trials regarding opioid rotation to further provide understanding of the benefits⁵.
- Opioid rotation needs to be further explored through more well-designed studies to help provide increased evidence and clinical guidance.

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