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Abstract Number : A60505

1

Abstract Title

Oral Dexamethasone Following Total Knee Arthroplasty: A Double-Blind, Randomized Controlled Trial

2

Abstract Description

Introduction: Dexamethasone has been shown to reduce pain in total joint arthroplasty beyond a single preoperative dose, and extended duration of steroid use has precedence for nausea prevention during some chemotherapy regimens. This double-blind, randomized, placebo-controlled trial investigates the postoperative effects and safety of oral dexamethasone as a potential augment to multimodal use in outpatient knee arthroplasty.
Methods: The authors prospectively randomized 109 consecutive patients undergoing primary total knee arthroplasty at one institution. Patients were assigned to one of two groups: Group A (57 patients) received 4 mg of dexamethasone by mouth twice per day starting postoperative day (POD) one for four days and Group B received placebo capsules. All healthcare professionals and patients were blinded to group allocation. The primary outcome was defined as postoperative pain scores for POD 1-7. Secondary outcomes included 90-day postoperative complications, nausea and vomiting, daily opioid usage, assistance for ambulation, difficulty sleeping, and early patient reported outcomes.
Results: Demographics and comorbidities were similar between groups. The patients who received dexamethasone had statistically significant decrease in VAS scores when averaging POD 1-4 ($p=0.01$). The average VAS scores amongst individual days were significantly lower with dexamethasone on POD 2-4. While taking dexamethasone, morning and midday VAS scores were significantly lower. The dexamethasone group took less oxycodone than the placebo group, but this was not statistically significant ($p>0.05$). There was no difference between the groups with nausea or vomiting, 90-day complications, ability to walk with/without assistance, difficulty sleeping, and early patient reported outcomes (Table 2).
Conclusion: This double-blind, randomized, placebo-controlled trial demonstrated that oral dexamethasone following primary total knee arthroplasty reduces pain scores postoperatively when added to a multimodal pain control regimen. This stands as a beneficial and safe option in ambulatory surgery where patients are unable to receive the traditional postoperative intravenous dose of dexamethasone.

3

Does this study include the use of large administrative databases (e.g., Medicare database, Nationwide Inpatient Sample, NSQIP, Humana database, Statewide or country database or registry, or any other BIG DATA source)?

No

If the presenter of this paper is a trainee, will the senior author be able to attend the meeting and answer audience questions?

4 Yes

5 **Has this work been :**

Not Applicable

6 **FDA Status: Policy provides that "off-label" uses of a device or pharmaceutical may be described in the CME activities as long as the "off-label" status of the device or pharmaceutical is also specifically disclosed (i.e. that the FDA has not approved labeling the device for the described purpose). Any device or pharmaceutical is being used "off-label" if the described use is not set forth on the product's approved label.**
Documentation of FDA status for uses described in my work for this educational program.

Not Applicable

7 **Clinical category that best describes the content of your proposal**

Primary Knee

8 **Does this study simultaneously describe both hip and knee arthroplasty patients? (e.g., includes both THA and TKA patients)?**

No

9 **How would you rate this abstract's level of evidence?**

Level 1: Randomized Controlled Trials or meta-analysis of randomized controlled trials

Description / Examples

Double-blind, randomized, placebo-controlled trial investigating the postoperative effects and safety of oral dexamethasone after total knee arthroplasty

10 **Have you and your co-authors disclosed all potential conflicts of interest through the AAOS disclosure process, http://www.aaos.org/disclosure?**

Yes

11 **Are ANY of the conflicts of interest of ANY of the authors related to this study?**

No

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