

Impact Of Peri-Operative Systemic Steroids Administration On Primary Total Hip Arthroplasty . A Meta-Analysis Of Prospective Randomized Trials.

Orthopaedics / Pelvis, Hip & Femur / Joint Replacement - Primary

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Background

Perioperative management of elective total hip arthroplasty (THA) is subject to a multidisciplinary approach. Perioperative steroids in total joint arthroplasty gained popularity for pain relief, reduction of postoperative nausea and vomiting (PONV) and enhanced recovery.

Objectives

The aim of this study is to systematically review and meta-analyze comparative results of prospective randomized trials focused on the effect of systemic steroid administration at different dosage in THA for hip osteoarthritis.

Study Design & Methods

A systematic review of the literature has been performed, following the Cochrane Handbook of Systematic Reviews of Interventions and Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) for study selection. Placebo-controlled prospective randomized trials reporting comparative outcomes of THA performed with perioperative systemic administration of corticosteroids were considered eligible for inclusion.

Results

A total of 8 prospective randomized trials involving 675 patients who underwent elective THA (369 in the study group and 306 in the control group) were finally included in this systematic review. Peri-operative systemic steroid administration in THA provides a significant benefit in terms of length of stay, pain, opioid consumption, PONV and inflammatory response without improving post-operative complications. The high-dose steroid administration (>20 mg of steroid equivalent) seems to provide only a significant reduction of inflammatory response measured with C-reactive protein and IL-6 at 24 and 48 hours.

Conclusions

The present meta-analysis provides the latest high-level evidence showing an enhanced recovery following elective unilateral THA in patients affected by hip OA.

This article presents the meta-analysis of the effects of peri-operative systemic steroids administration in elective total hip replacement providing high-level evidence to support their routine use in clinical practice. These findings help the clinician to assess the multiple benefits of peri-operative steroids administration in total hip replacement.