



The Timing of THA after Intra-articular Hip Injection affects Postoperative Infection Risk

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Introduction: Intra-articular hip injections are performed for both diagnostic and therapeutic purposes for patients with hip osteoarthritis. Data regarding any association between preoperative intra-articular steroid injection and risk of periprosthetic joint infection (PJI) after total hip arthroplasty (THA) is conflicting. The goal of the present study is to employ a national database to evaluate the association of preoperative ipsilateral IAHJ at various time intervals prior to THA with the incidence of postoperative PJI.

Methods: A national insurance database was queried for patients who underwent THA following ipsilateral hip injection. Three cohorts were created: THA within 3 months of injection ($n = 829$), between 3 and 6 months after injection ($n = 1,379$) and between 6 and 12 months after injection ($n = 1,160$). A control group of THA without prior injection was created for comparison purposes ($n = 31,229$). The rate of postoperative infection was compared between injection cohorts and control THA using Pearson χ^2 analysis, with $P < 0.05$ considered significant.

Results: The cohorts were similar in terms of gender, age group, smoking status and Charlson Comorbidity Index. The incidence of infection after THA at 3 months (2.41%, OR 1.9, $P = 0.004$) and 6 months (3.74%, OR 1.5, $P = 0.019$) was significantly higher in patients who underwent hip injection within 3 months prior to THA compared to controls [Tables 1 and 2]. There were no significant differences in infection rates in patients who underwent THA between 3 - 6 or 6 - 12 months after ipsilateral hip injection compared to controls [Tables 1 and 2].

Conclusion: The present study suggests a significant increase in postoperative PJI in patients who underwent injection within 3 months prior to THA. This association was not noted when THA was performed more than 3 months after injection.