

Weight-Based Prophylactic Low-Molecular-Weight Heparin With Surgery Morning Administration: Does It Affect the Incidence of Early Postoperative Hematomas and Infections After Hip Hemiarthroplasty? A Single-Center Retrospective Study

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Purpose: Several studies have questioned the efficacy of the standard perioperative low-molecular-weight heparin (LMWH) dosing in venous thromboembolic prophylaxis. The purpose of this study is to analyze the effect of LMWH regimen modification to weight-based with day of surgery morning dose administration on the incidence of early postoperative periprosthetic hematoma (PPH) and infections (PPI) in hip hemiarthroplasty (HA) patients.

Methods: At our Level I trauma center, LMWH dose escalation to the weight-based/surgery morning regimen became standard of care in mid-June 2019. The cases of HA in our institution between January 2007 and June 2023 have been divided into 2 groups, before and after the dose modification protocol. The number of early PPH/PPI cases has been studied in each group.

Results: A total of 1517 cases were performed prior to the new protocol, out of them 27 cases (1.779%) had early postoperative hematoma/infections, while after dose modification 17 cases (1.814%) had hematomas/infections out of 937 cases. Difference between the 2 groups was not statistically significant ($z = -0.0625$, $P = 0.95$).

Conclusion: Escalation of perioperative LMWH dose to the weight-based regimen, without holding the surgery day dose, did not increase the incidence of early postoperative PPH/PPH. Multicenter studies would be ideal to generate stronger evidence.

