Effects of Fondaparinux For Prophylaxis in Total Joint Arthroplasty

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INTRODUCTION: Total joint arthroplasty can be a balance between venothromboembolic (VTE) events and wound complications resulting in surgical site infections. Prolonged wound drainage with anticoagulation following total hip (THA) or total knee arthroplasty (TKA) has been associated with increased postoperative morbidity. We sought to determine the effects of fondaparinux (Arixtra) on postoperative wound drainage in the total joint patient. Our secondary outcome was hospital length of stay and surgical site infection rates.

METHODS: 117 patients undergoing total joint arthroplasty were administered 2.5mg of oral fondaparinux for VTE prophylaxis and prospectively followed for perioperative complications. For TKA, medial parapatellar arthrotomy was performed; for THA, posterolateral approach was utilized for each operation. Primary outcomes were wound drainage, secondary outcomes were length of stay (LOS) and infection rates. Patient demographs and perioperative variables were recorded and analysis was performed to evaluate other risk factors for wound drainage. All research was conducted using ethical standards with informed consent performed for each patient.

RESULTS SECTION: The average time to a dry wound was 3.4 (1-10) days, with an average LOS of 3.77 (2-12) days. Perioperative complications included superficial cellulitis (2.8%), DVT (2.8%), PE (2.8%). No patient developed a deep infection. One patient required reoperation for hematoma. Multi-variate analysis showed increased patient BMI significantly increased LOS ($p = 0.0169$). There was no difference in wound drainage with regards to sex, type of surgery nor estimated blood loss ($p = 0.2724$; 0.0779; 0.91, respectively)

DISCUSSION: Fondaparinux appears to be a safe drug for VTE prophylaxis in total joint arthroplasty with an amount of wound drainage comparable to historical controls of enoxaparin, warfarin, and rivaroxaban. Patients with a higher BMI may be at risk for increased LOS with use of fondaparinux. Consideration of an alternative VTE prophylactic medication may be helpful with higher BMI.

SIGNIFICANCE/CLINICAL RELEVANCE: (1-2 sentences): Fondaparinux appears to be a safe drug for VTE prophylaxis in total joint arthroplasty with an amount of wound drainage comparable to historical controls of enoxaparin, warfarin, and rivaroxaban.

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