AB019. 149. Timing of low molecular weight heparin administration in breast surgery and post-operative haematoma formation

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Background: In 2016 the American Society of Breast Surgeons generated thromboprophylaxis guidelines for breast surgery patients. There continues to be a paucity of guidelines pertaining to the optimum timing of venous thromboembolism (VTE) prophylaxis administration. Some studies have found enoxaparin to not increase haematoma rates (Pannucci et al., 2012) but others show contradictory increased risk (Lapid et al., 2012). Thus, further research is warranted to determine if pre- or post-operative administration of VTE prophylaxis effects post-operative haematoma rates.

Methods: A cohort sample of 100 patients who underwent elective breast surgery in University Hospital Limerick in 2017 was identified retrospectively by analysis of theatre lists and chart reviews. Data on: timing of enoxaparin administration, incidence of post-operative haematoma and patient demographic factors [age, body mass index (BMI), smoking status, anti-coagulant use] were collected. Statistical analysis was then performed to determine if a correlation existed between timing of enoxaparin administration or patient related factors and haematoma formation.

Results: Of 100 patients, 73% (n=73) received thromboprophylaxis in the form of enoxaparin, 27% received none. Of the thromboprophylaxis group, 42% received enoxaparin pre-operatively and 31% post-operatively. Incidence of post-operative haematoma was 4% (n=4). Of the haematoma group, 75% (n=3) received post-operative enoxaparin (P=0.16). Independent patient factors did not significantly impact rate of haematoma formation.

Conclusions: Timing of enoxaparin administration in patients undergoing elective breast surgery is varied at our institution. Post-operative haematoma rate is 4% and is potentially associated with post-operative enoxaparin administration. Age, BMI, smoking status and anticoagulation use did not correlate with haematoma formation in our cohort.

Keywords: Breast surgery; enoxaparin; haematoma; low molecular weight heparin; timing; thromboprophylaxis

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