

## 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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