PRACTICE MANAGEMENT SESSION 2

Venous Thromboembolism
Chemoprophylaxis in Plastic Surgery: One Size May Not Fit All

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INTRODUCTION: For over a decade now, there has been increasing awareness of the importance of deep venous thrombosis (DVT) prophylaxis in plastic surgery. Plastic surgeons have yet to agree on practice guidelines founded on evidence-based medicine (EMB). Seeking to address this issue, the American Society of Plastic Surgeons Executive Committee approved the Venous Thromboembolism Task Force Report. Despite the lack of sufficient evidence to establish comprehensive recommendations for VTE prophylaxis in plastic surgery patients, the Task Force recommendations accompanied by the Caprini Scale was released in 2005.1 However the data consistently fail to prove significant benefit within these practice guidelines. Some surgeons have adopted this system to identify high-risk patients to be more selective with the use of VTE prophylaxis, but new studies are showing that there may not be a direct correlation between those with a maximum Caprini score of 10 and the incidence of VTE.2 Due to the lack of concrete evidence, some surgeons choose to avoid chemoprophylaxis in healthy patients if surgery is predicted to be less than 6 hours in duration taking into account that they will ambulate immediately postop.

METHODS: All patients who underwent surgery performed by a single surgeon (KS) during the years 2012–2017 were evaluated and included if surgery duration was less than 6 hours. Exclusion criteria included patients who underwent surgery lasting longer than 6 hours and those with known hypercoagulable states or other known conditions that would otherwise mandate chemoprophylaxis. Demographic data were collected and analyzed including VTE score, ASA level, EBL, BMI, age, gender, type of surgery, and length of hospital stay. Outcome variables included development of VTE.

RESULTS: In a sample of 1173 patients who underwent operations ranging from 30 min to 6 hours in duration, including patients with Caprini score ≥ 7, there was only 1 case of uncomplicated DVT (0.8%). There was no increase in DVT or PE compared to those who received DVT chemoprophylaxis sited in other studies with incidence of 1%.3

CONCLUSION: In our population of plastic surgery patients who did not receive DVT chemoprophylaxis regardless of their Caprini score, there was no significant increase in the incidence of DVT and PE. We believe the risk of hematoma is more significant in this specific population and especially undesirable in cosmetic surgery patients.4

Reference Citations:
1. Murphy RX, Alderman A, Gutowski K, et al. Evidence-based practices for thromboembolism prevention: summary of the ASPS Venous Thromboembolism Task Force Report. Plast Reconstr Surg. 2012;130(1):168e -175e. doi:10.1097/PRS.0b013e318254b4ee.
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3. Pannucci CJ. Evidence-Based Recipes for Venous Thromboembolism Prophylaxis: A Practical Safety Guide. Plast Reconstr Surg. 2017;139(2):520e - 532e. doi:10.1097/PRS.0000000000003035.
4. Bahl V, Shuman AG, Hu HM, et al. Chemoprophylaxis for venous thromboembolism in otolaryngology. JAMA Otolaryngol– Head Neck Surg. 2014;140(11):999–1005. doi:10.1001/jamaoto.2014.2254.

Anemia and Plastic Surgical Outcomes

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INTRODUCTION: There is a large amount of literature reporting that anemia is not a risk factor for wound complications.1-3 However, other comorbidities associated with anemia have been associated with negative surgical outcomes.3 In this study, we examined the association between