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Letters to the editor

Pulmonary embolism following ocular surgery

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To the editor: We read with interest the article by Hosoi and coauthors on "Pulmonary embolism (PE) after minor surgery in a patient with low-risk thrombocythemia" [1]. This report highlights that although certain surgical procedures may be considered "minor," the risk of PE should always be borne in mind, especially in patients with known risk factors. Deep venous thrombosis (DVT) and PE have also been reported following ocular surgery. Although modern cataract surgery is considered a minor day care procedure, Ong et al. have reported DVT following uneventful phacoemulsification surgery in a patient already on long-term anticoagulation for atrial fibrillation with factor V Leiden mutation [2]. Other ocular surgeries such as retinal reattachment surgery may pose a greater risk of DVT and PE as patients are relatively immobile and often need to maintain a certain head posture for several weeks postoperatively. Such patients have their vitreous cavity filled with an inert gas mixture, which acts as an internal tamponade for retinal breaks. The specific head positioning required to achieve this tamponade is critical to the success of the surgery. Prolonged postoperative head positioning, however, may expose predisposed patients to the risk of thromboembolism. Au Eong and coauthors have reported a case of PE following DVT in a 38-year-old woman on the eighth postoperative day following retinal reattachment surgery and prolonged immobilization to maintain the required head posture [3]. Following the PE, screening for thrombophilia revealed that she had activated protein C resistance caused by factor V Leiden heterozygous mutation. Chu and coauthors have also reported DVT following immobilization after retinal detachment surgery [4].

DVT and PE therefore remain a major concern in retinal surgeries requiring postoperative head positioning for prolonged duration. Such patients may benefit from the use of silicone oil tamponade to reduce the need for postoperative head positioning in addition to other measures of DVT prophylaxis such as compression stockings, stretch exercises while in bed, and walking for 5–10 min every hour while maintaining the desired head posture.

It is helpful to remember that PE was the leading cause of death in patients undergoing cataract surgeries a few decades ago as prolonged postoperative bed rest was advised following surgery [5]. Fortunately, prolonged postoperative bed rest is no longer necessary, and this has greatly contributed to the reduced incidence of DVT and PE following cataract surgery in recent years.

We agree with Hosoi and colleagues that DVT prophylaxis should be considered in patients with known risk factors even for apparently "minor" surgery.

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