Chronic antithrombotic therapy in cataract surgery: How much evidence do we have?∗

Tratamiento antitrombótico crónico en la cirugía de cataratas: ¿qué evidencia existe?

Dear Editor:

Cataract surgery is a procedure performed on a high number of patients in prolonged antithrombotic treatment.1 Over 28% of these patients take aspirin, 2% are in treatment with clopidogrel and over 5% are anticoagulated.2 It is well known that interrupting the use of anticoagulants during surgery could increase the risk of thromboembolism. For example, the annual cerebrovascular accident risk in a patient with auricular fibrillation without anticoagulant treatment is of 5%. Hemorrhage is a fearful complication in patients who are on antiplaetelet/anticoagulant treatment and undergo surgical procedures. Particularly in cataract surgery, subconjunctival hemorrhage is the most frequent hemorrhagic adverse event, while suprachoroidal, retrobulbar, peribulbar, vitreous and expulsive hemorrhages are observed with less frequency, together with hemorrhages in the iris, anterior chamber, and palpebral ecchymosis.2

Consequently, surgeons must choose between facing the risk of hemorrhages against the probability of antithrombotic events occurring due to the interruption of the appropriate therapy. Even though cataract surgery is considered to be a nonvascular procedure and as slight bleeding is itself limited in most cases when the intervention is performed by an expert surgeon, the potential risk of bleeding continues to be cause of discussion in everyday practice.3 However, many surgeons prefer to suspend antithrombotic therapy prior to cataract surgery despite the risk of thrombotic events. In the majority of cases, the problem is resolved on the basis of the surgeon’s personal experience or with the support of other medical specialties (for example cardiology or hematology) with the ensuing increase in cost and time.

A comprehensive prospective study published by Katz et al.1 on the risks and benefits of chronic antithrombotic therapy in 19,283 patients who had cataract surgery concluded that the ocular hemorrhage risk was not greater in the group of patients that continued with the antithrombotic treatment, and that the risk of thrombotic events in patients with suspended antithrombotic therapy prior to surgery was not greater either.

The guidelines of the Royal College of Ophthalmologists of the United Kingdom recommend that patients on chronic treatments with aspirin or warfarin who undergo cataract surgery should not suspend anticoagulant treatment. However, two parameters must be fulfilled: (1) The International Normalized Rate (INR) should be in the therapeutic range prior to surgery, and (2) a risk–benefit analysis must be made when retrobulbar–peribulbar anesthesia must be used as it seems that the risk of hemorrhage increases in these cases.2

An issue that should be taken into account in the above described approach is the risk of bleeding attributed to the anesthetic technique in cataract surgery, said risk being greater in the retrobulbar–peribulbar anesthesia than in the subtenon or topical approach. Accordingly, even though a multicenter study based on an electronic database of 55,667 cataract surgeries demonstrated higher frequency of minor hemorrhagic events associated to the use of clopidogrel and warfarin, said adverse events occurred in patients with subtenon anesthesia with greater frequency than in cases with topical anesthesia.3

In summary, most authors agree on avoiding the use of chronic antplatelets or to interrupt anticoagulant treatment prior to cataract surgery. Even though some slight subconjunctival hemorrhages may occur with anesthesia applied by means of an injection, which could cause problems during surgery, said hemorrhages will probably be self-limited. Patients who received clopidogrel could merit special attention and should be taken into account in other underlying conditions. The decision to interrupt therapy in these patients should be taken by an interdisciplinary team. INR should be verified prior to surgery in patients under chronic treatment with anticoagulants and their levels should be within the appropriate range. A warning about the possibility of minor and self-limited subconjunctival bleeding could be included in surgery informed consent forms for patients. In fact, the risk of hemorrhage in anticoagulated patients seems to be more

related to the type of anesthesia applied in cataract surgery than with the use of anticoagulants. It was demonstrated that bleeding was larger with retrobulbar or peribulbar anesthesia than with subtenon or topical anesthesia. Consequently, anticoagulation should continue regardless of the anesthetic technique.

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**REFERENCES**

