Dear Sir,

Even though at present there are many options for anesthetics, in ophthalmic procedures two are more accepted, particularly for cataracts surgery via phacoemulsification. These anesthetics are topical and regional (1). The choice for either one will depend on the needs of the patient and the surgeon’s preferences (2).

The topical anesthesia proposed by Knapp in 1884 with the sole use of 5% cocaine drops, was left aside for a long time until Fichmann recovered it in 1992 for phacoemulsification due to the clear advantages it exhibited for loco-regional anesthesia, including fast functional recovery and autonomy for the patient, avoiding potential complications.

However, strictly speaking, in topical anesthesia only anesthetic drops should be used because, if we add sedation and/or intra-chamber lidocaine – which is quite usual– we would be applying what our group defines as a «combined anesthetic technique». In this regard, it is useful to recall that the use of intra-chamber lidocaine is not approved in Spain except for «compassionate use» –a legal point which is a requirement– unless combined with a viscoelastic (VisThesia®). It could also be the cause of a TASS (Toxic Anterior Segment Syndrome) if the 1% dilution of the 2% presentation is not done properly.

There are situations related to the surgeon (e.g., a «young» intern), to the patient (anxiety, lack of cooperation, Parkinson disease, hypoacusis, small palpebral opening, nistagmus, uveitis history, etc.) or to the eye (ametropia, corneal pathology, hardened or sub-dislocated cataracts, small midriasis, synchiasis, IFIS syndrome, previous ocular surgery, macular pathology involving fixation, etc.), where the patient comfort and the surgeon’s freedom of movement are essential for the successful outcome of the surgical procedure.

Accordingly, in addition to the topical (combined) anesthesia, in recent years we have utilized peri-topical anesthesia (another term coined in our service), consisting in the combination of topical anesthetic (only drops) and peribulbar anesthesia in a single injection. In both procedures we utilize the combination of two anesthetics: a fast and short one and another with a longer latency and duration. Our peri-topical anesthesia protocol begins in the pre-surgery room, where the patient is instilled with a first group of a commercial mixture of tetracaine clorhydrate at 0.1% and oxybuprocaine clorhydrate at 0.4% (Colircusi Anestésico Doble®); oxybuprocaine acts in 10-12 seconds, thus calming the irritation of tetracaine, a longer-lasting anesthetic. The second and third drops, with the patient already in the operating theatre, is a commercial mixture of tetracaine clorhydrate 0.5% and nafazoline (Colircusi Anestésico 0.5®). In this preparation, the concentration of tetracaine is 5 times higher and it utilizes the vasoconstrictor effect of nafazoline which will slow down the absorption of the first anesthetic, thus achieving an efficient anesthetic action lasting approximately 20 minutes. Peri-bulbar anesthesia consists in a single injection of 4ml of a 50% mixture of lidocaine 2% and bupivacine 0.5%, inferior temporal. Lidocaine has a motor effect and a fast action analgesic due to its vessel dilation properties which enhance a rapid absorption, while bupivacine has a preference for sensitive fibers –painful when injected in a single solution– exhibiting greater latency and duration.

The above combination means that, after the surgery, the limited induced achinesia is practically gone, leaving a comfortable analgesia which does not prompt the patient to rub or press the eyes as an anti-algic maneuver, actions which are dangerous in a suture-free surgery and could cause some degree of Seidel, secondary hypotony, changing the OIL position, promoting the appearance of endophthalmitis (3), etc.

In peri-topical anesthesia, eyesight recovery is faster, there is not post-op ptosis and it is not necessary to implement ocular occlusion. We should not employ the arguments of those who define “nontopical anesthesia” as a technique to be ashamed of or as an obsolete method; instead, we should understand that we have a new, safe and efficient option at our disposal which can benefit some of our patients.

Yours truly,

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REFERENCES