Editorial

Do we expect enough?☆

¿Esperamos lo suficiente?

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The use of adrenaline in combination with local anesthetics is a broadly extended practice in surgery for extending the anesthetic effect (up to 200%) and achieve improved hemostasis and therefore enhanced visualization in the surgical field.1 In this practice it is important not only to use adrenaline as a vasoconstrictor but also to observe the prescribed time for the said drug to reach its maximum effect.

Classic texts estimate the said waiting time between 7 and 10 min on the basis of the results of a study carried out in 1987 on pigskin with Doppler flowmeter.2 However, more recent studies which applied tissue reflectancy spectroscopy seem to extend the said optimum waiting time up to 25 min.3 These latest studies determined the waiting time after injecting lidocaine with adrenaline to achieve the lowest concentration of hemoglobin at the skin level. Tissue reflectancy spectroscopy provides a more direct estimation of the intra-surgery potential for bleeding in comparison with the isolated arterial blood flow measured with Doppler. The said technique is being applied even for noninvasive monitoring of skin graft perfusion in order to determine feasibility, and one of its most extended applications in daily practice is the omnipresent pulse oximeter. A physiological explanation of this increased optimum waiting time for vasoconstriction is that the vasoconstrictor effect of adrenaline is complex and the vasoconstriction intensity varies with different blood vessel types. Thus, even though the maximum vasoconstriction effect of adrenaline is reached between 7 and 10 min, more time is required to reach a new balance in the local amount of hemoglobin.

According to the data found in the literature, it seems logical to respect the recommended waiting time to optimize the vasoconstrictor effect of adrenaline. However, in daily practice it is not easy to fulfill this requirement. For a start, patience does not appear to be a characteristic virtue of many surgeons: some surgeons start operating immediately after the infiltration and others, being more aware of the issue, perform the infiltration before surgery washing, achieving a waiting time of about 5–10 min at the most. Setting aside the natural impatience of surgeons, there are other added factors of administrative nature which also make it difficult to fulfill the said requirements. The usual organization of outpatient circuits does not provide a physical space for administering anticipated infiltration to patients. The constant and growing pressure by managers for optimizing surgery occupancy, as can be seen in the well-known TQEs of the Community of Madrid, requires minimum surgery time and minimum intervals between surgeries, which makes it difficult to explain what patients are doing inside the surgery without apparent effective activity. Even so, a measure which would appear to increase surgery occupancy time in the long-term could be more efficient as it provides a surgical field with less blood and therefore faster operations.

It may sound utopian to propose a waiting time of 25 min to allow vasoconstriction for all surgeries, but in surgeries involving more bleeding and with difficult visualization such as dacryocystorhinostomy among others, advanced planning with some adaptations of the routine surgical circuit could provide beneficial resources as valuable as vasoconstriction.

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in order to reduce surgery time and in the final instance minimizing morbidity in our patients.

REFERENCES