



LETTER TO THE EDITOR

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A comment on “General anesthesia management in carotid endarterectomy surgery: a single center experience”

Ali Sait Kavakli

Antalya Training and Research Hospital Department of Anesthesiology and Reanimation, Antalya, Turkey

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Dear Editor,

I have read with great interest the article that Ozkan et al [1] retrospectively reviewed 72 patients who received general anesthesia for carotid endarterectomy and evaluated clinical outcomes. As the authors have also pointed out; the choice of anesthetic method to be preferred in carotid endarterectomy is still controversial. However, regional anesthesia may have some advantages that the authors not mention.

Firstly, 3% of patients who underwent CEA are at stroke or death risk, of which one-third occurs intraoperatively due to embolization or cerebral ischemia during cross-clamping [2]. The use of a shunt might reduce cerebral ischemia by maintaining ipsilateral flow. Some surgeons prefer the routine use of a shunt, and others perform CEA under regional anesthesia making neuromonitoring unnecessary. Because the use of shunt has been shown necessary only 10-14% of patients undergoing CEA under local or regional anesthesia, routine necessity of use of shunt is controversial [3]. Moreover use of shunt is associated with complications such as arterial dissection, atheromatous or air emboli. Therefore many centers prefer selective shunting instead of routine shunting. Different methods may be used include to evaluate the cerebral perfusion during cross-clamping, which allows selective shunting. These methods include computerized electroencephalography (EEG), transcranial Doppler (TCD), stump pressure measurement (SPM), and neurologic examination when CEA is performed under regional or local anesthesia. Although these methods are decreased the use of shunt, none of them has been superior with regard to intraoperative stroke risk reduction [4].

GALA study showed that use of shunt was less in CEA with regional anesthesia compared with general anesthesia (14% vs 43% respectively) [3].

Secondly, regional anesthesia for CEA is more cost effective than general anesthesia [5]. When operating room expenses, possibility of received to the intensive care unit and length of hospital stay are taken into account, regional anesthesia may be preferable technique to choice for CEA than general anesthesia. Therefore if regional anesthesia is clinically appropriate, it should be optimal choice.

Although regional anesthesia have some procedural complications such as temporary unilateral diaphragmatic and vocal cord paralysis, neural injuries and epidural, and subarachnoid or intravascular injection of local anesthetic, it can be performed under ultrasound guidance with a high success rate and a low risk of procedural complications[6] even if the patients take dual antiplatelet therapy or they had a prior cervical surgery [7].

The superiority of the anesthesia technique used in carotid endarterectomy is controversial. Ideally, appropriate anesthetic method should be preferred in patient. The surgeon and the anesthetist should be aware with the pros and cons of both methods and should make their choice accordingly.

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*Corresponding Author: Ali Sait Kavakli, Antalya Training and Research Hospital Department of Anesthesiology and Reanimation, Antalya, Turkey
E-mail: alisaitkavakli@hotmail.com

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