KAROTIDNA ENDARTERIEKTOMIJA V LOKALNI ANESTEZIJI
CAROTID ENDARTERECTOMY IN LOCAL ANAESTHESIA

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POVZETEK

Izhodišče

Uporaba začasnega obvoda med KE (karotidno endarteriektomijo) ni brez nevarnosti. Uporaba začasnega obvoda lahko poveča tromboembolični dogodek. Zaradi navedenega se pri KE v lokalni anesteziji uporablja začasni obvod selektivno glede na odzivnost budnega bolnika.

Metodologija

V Splošni bolnišnici Novo mesto (SB NM) smo od 2018 do maja 2019 opravili 69 KE. 24 bolnikov (34,8 %) je bilo simptomatskih. 46 (66,7 %) je bilo moških, 23 (33,3 %) pa žensk. V 60 (87 %) primerih smo arteriotomijo zapirali s krpico, v 8 (12 %) primerih smo arteriotomijo zapirali z neposrednim šivom, pri enem bolniku (1 %) pa je bila narejena everzijska tehnika.

Začasni obvod uporabljamo selektivno. V sedemnajstih mesecih smo ga uporabljali le v 4 primerih. Uporabili smo ga takrat, ko je bila perfuzija možganov nezadostna. Slednja se je kazala s slabšo odzivnostjo bolnika. Pri bolnikih, ki so bili operirani v splošni anesteziji, smo med posegom spremljali oksigenacijo v možganih z metodo NIRS (near infrared spectroscopy). Prag za vstavitev začasnega obvoda je bil padec 12 % bazalne vrednosti.

KE izvajamo v lokalni anesteziji, ker menimo, da je tak način najboljši način nevromonitoringa. Bolnike operiramo v splošni anesteziji, in sicer v primeru anksioznosti, klavstrofobije, bolečin v križu. V lokalni anesteziji smo operirali 58 (84,1 %) bolnikov.

97,1 % KE je minilo brez večjih zapletov. Do perioperativnega zapleta je prišlo pri dveh bolnikih. Eden je bil operiran v lokalni anesteziji. Prišlo je do akutnega miokardnega infarkta tretji dan po operaciji. Drugi bolnik je bil operiran v splošni anesteziji. Oksigenacija možganov je bila med posegom nestabilna, kar je bil razlog za uporabo začasnega obvoda. Šlo je za simptomatskega bolnika z razdrobljenim plakom. Bolnik je med operacijo utrpel ishemično možgansko kap.

Rezultati

V Splošni bolnišnici Novo mesto smo v sedemnajstih mesecih operirali 69 bolnikov. Večina bolnikov je bila operirana v lokalni anesteziji, ki omogoča selektivno uporabo začasnega obvoda. Le dva bolnika sta utrpela večji zaplet, kar predstavlja 2,9 %.

Sklepne misli

Naše izkušnje s KE v lokalni anesteziji so dobre. Prednost je v neposrednem nevrološkem nadzoru, večji hemodinamski stabilnosti in manjši potrebi po uporabi začasnega obvoda.

Ključne besede: bližnja infrardeča spektroskopija, bolezen karotidne arterije, nevrološki nadzor med operativnim posegom.

SUMMARY

Background

Using a shunt during a CEA (carotid endarterectomy) is not without the risk, as shunting can enlarge the risk of thromboembolism. For this reason, the best way is to use a shunt selectively when performing the operation under local anaesthesia, with an awake patient.

Method

We had 69 patients undergo a CEA (carotid endarterectomy) from the beginning of 2018 until May 2019 in the Novo mesto General hospital. 24 patients (34.8%) were symptomatic. The majority of them were men, 46 (66.7%), and only 23 (33.3%) were women. 60 (87%) thromboendarterectomies of the carotid bifurcation with a Dacron patch were performed. Only 8 (12%) of them with direct closure and one (1 %) had another type of reconstruction (the eversion technique).

We prefer using shunts selectively. In seventeen months, we have only used one in four cases. A shunt was inserted only when cerebral perfusion was found to be inadequate. We use awake testing with patients under local anaesthesia, or cerebral oximetry (NIRS – near infrared spectroscopy) for patients under general anaesthesia.

In our department we prefer intraoperative monitoring of awake patients. General anaesthesia is rarely used, especially with anxious, claustrophobic

people, or those with back pain. Under local anaesthesia we carried out 58 procedures, which represents 84.1% of all the patients.

97.1% of procedures were without complications. Perioperative complications occurred in two patients. One of them was under awake neuromonitoring. In the perioperative period a myocardial infarction occurred. The other was under general anaesthesia. The NIRS was unstable during the surgery and that is the reason why a shunt was used. The patient was also symptomatic and had a fragile plaque, which was more likely to cause a cerebral vascular incident.

Results

In the General Hospital of Novo mesto we carried out 69 CEAs in seventeen months. With the use of local anaesthesia and selective shunting, only two patients developed major complications, representing 2.9% complications after a CEA in our hospital.

Conclusions

Our experience with local anaesthesia during the CEA procedure is very good. We believe that the advantages include direct neurological monitoring, with greater hemodynamic stability and a lower requirement for shunts.

Key words: carotid artery disease, near infrared spectroscopy, neuromonitoring.