






## Cefalična venotomija kao prvi pristup kod ugradnje dvokomornih elektrostimulatora srca

### Cephalic cut-down as preferred approach for dual chamber pacemaker implantation

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**Uvod:** Podaci iz literature govore u prilog tome da je pristup preko cefalične vene povoljniji od punkcije potključne vene u smislu manje stope komplikacija prilikom ugradnje srčanih elektronskih uređaja. Nedavno istraživanje *European Heart Rhythm Association* (EHRA) je pokazalo da 60% ispitanih centara koristi cefaličnu venu kao prvi pristup venskom sustavu.<sup>1</sup> U Kliničkom bolničkom centru Split, cefalična venotomija je put izbora kod ugradnje jednokomornih i dvokomornih elektrostimulatora srca. Cilj studije je analizirati uspješnost cefalične venotomije kod ugradnje dvokomornih elektrostimulatora srca.

**Metode i rezultati:** Retrospektivno smo analizirali podatke o ugradnji dvokomornih elektrostimulatora srca od siječnja 2016. do listopada 2018. godine. U tom razdoblju su ugrađena 194 dvokomorna elektrostimulatora srca. Pristup cefaličnoj veni je postignut prepariranjem i direktnom vizualizacijom te potom venotomijom. Kada je bilo potrebno, da bi se olakšao pristup preko cefalične vene, upotrijebljena je hidrofилna žica i/ili uvodnica. Koristeći cefaličnu venu, dvije elektrode su postavljene kod 118 (61%) dvokomornih elektrostimulatora srca. U 34 (18%) slučaja jedna od elektroda je postavljena putem cefalične vene, a druga putem potključne vene. Punkcija potključne vene za obje elektrode je bila potrebna u 42 (21%) ugradnje.

**Zaključak:** Naši podaci su u skladu s trendovima u EHRA-a istraživanju. Koristeći se pomoćnim alatima, cefalična venotomija može zamijeniti potrebu punkcije potključne/pazušne vene u većini slučajeva.

**Introduction:** Literature suggests that cephalic approach is more beneficial than subclavian access in preventing complications when performing cardiac implantable electronic devices (CIED) implantation. In recent survey by European Heart Rhythm Association (EHRA) cephalic vein as venous access for lead implantation was the preferred approach in 60% of the centres<sup>1</sup>. In University Hospital Centre Split, we prefer cephalic cut - down as first choice for venous approach in single and dual chamber pacemaker implantation. The aim of study was to analyze the success rate of cephalic cut - down in dual chamber pacemaker implantation.

**Methods and Results:** We retrospectively analyzed data regarding dual pacemaker chamber implantation from January 2016 to October 2018. During that period 194 dual chamber pacemakers were implanted. Cephalic vein access was achieved by dissection and direct visualization. When needed, to facilitate entry into cephalic vein we used hydrophilic guidewire and/or introducer sheath. In 118 cases (61%) both leads were inserted using cephalic access exclusively. One lead by cephalic cut down and another by subclavian venipuncture was performed in 34 (18%) cases. In 42 (21%) implantations subclavian venipuncture was required for implantation of both leads.

**Conclusion:** Our results are in concordance from data of EHRA survey. Use of refinements of the cut-down cephalic approach might obviate puncture of subclavian/axillary veins in majority of cases.

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#### LITERATURE

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