







Ablacija supraventrikulskih kružnih tahikardija bez korištenja fluoroskopije – zero fluoro: prikaz serije slučajeva iz Kliničkog bolničkog centra Split

Ablation for supraventricular reentrant tachycardias without using X ray fluoroscopy – »zero fluoro« case series presentation from University Hospital Centre Split

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Uvod: U bolesnika sa simptomatskim supraventrikulskim kružnim tahikardijama osnovni oblik liječenja je kateterska, većinom radiofrekventna (RF), ablacija. Konvencionalno se upravljanje intrakardijalnim kateterima kontrolira fluoroskopijom. Takvim načinom izlažemo zračenju ne samo bolesnika, što je osobito važno u djece i trudnica, već i osoblje elektrofizioloških (EP) laboratorija iscrpljujući ih nošenjem zaštitnih pregača. Zahvaljujući razvoju sustava elektroanatomskog mapiranja izvođenje ovih elektrofizioloških postupaka je postalo moguće i bez fluoroskopije te ih nazivamo "zero fluoro".¹

Bolesnici i metode: Ovo je prikaz serije slučajeva s pogledom na indikacije kao i intraproceduralne postupke kod RF ablacija provedenih "zero fluoro" načinom u 31 bolesnika u Kliničkom bolničkom centru Split od veljače do studenog 2018. godine.

Rezultati: Srednja dob bolesnika je bila 43 godine (12-71), od njih su 21 bile žene (68 %). U 3 bolesnika je dijagnosticiran WPW (Wolff-Parkinson-White) sindrom s desnostranim ili paraseptalnim akcesornim putem dok je u ostalih dijagnosticirana AVNRT (eng. *Atrioventricular Nodal Reentrant Tachycardia*). Prosječno vrijeme trajanja postupka je bilo 54,5 minute (95% CI 42.1 - 69.4), uključujući 10 minuta čekanja za AVNRT i 20 minuta za WPW slučajeve. Tijekom zero fluoro ablacijskih postupaka nismo imali komplikacije i polučile su akutni uspjeh u svih bolesnika.

Zaključak: "Zero fluoro" ablacijski postupak je novi standard u liječenju kružnih paroksizmalnih supraventrikulskih tahikardija i trebao bi biti moguć u svim centrima opremljenim 3D mapping sustavima kako bi se bolesnici i osoblje pošteđeli od zračenja, a osoblje i od nošenja zaštitnih olovnih pregača.

Introduction: Percutaneous catheter, mostly radiofrequency (RF), ablation for supraventricular reentrant tachycardias is an established way of treating symptomatic patients. Traditionally, an essential tool for guiding intracardiac catheter manipulation was X ray fluoroscopy. This not only exposes patients to the risk that ionizing radiation carries, which is of particular concern in pediatric cases or cases involving pregnant women, yet also exhaust the EP lab personnel with the need for wearing leaded X-ray protection. Recently, with the help of electroanatomical mapping systems, the possibility of performing these procedures without the use of X ray fluoroscopy, so called «zero fluoro», has emerged.¹

Patients and Methods: This is a case series presentation with an overview of indications and some intraprocedural aspects of RF ablation procedures performed from February 2018 to November 2018 in 31 patients by using the «zero fluoro» approach at the University Hospital Centre Split.

Results: The mean patient age was 43 (range 12-71), 21 females (68%). In 3, the diagnosis was WPW (Wolff-Parkinson-White) syndrome with right sided or paraseptal accessory pathways, AVNRT (Atrioventricular Nodal Reentrant Tachycardia) was diagnosed in the rest. The mean procedure time was 54.5 minutes (95% CI 42.1 - 69.4), including a 10 minute waiting period for AVNRT and 20 for WPW cases. No complications occurred during any of these «zero fluoro» cases, while acute success had been achieved in all patients.

Conclusion: The «zero fluoro» approach to PSVT ablation is a modern standard. Centers which are equipped with 3D systems and capable of supporting this technique should offer it to all comers thus saving the patients from X ray exposure risks and lab personnel from wearing leaded aprons.

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LITERATURE

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