








Ablacija WPW sindroma u 12-godišnjeg dječaka bez korištenja fluoroskopije X zrakama

Ablation for WPW syndrome in a 12-year-old boy without using X ray fluoroscopy

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Uvod: Perkutana radiofrekventna (RF) kateterska ablacija je prihvaćena metoda liječenja supraventrikularnih aritmija kod simptomatskih pacijenata. Konvencionalna fluoroskopija X zrakama je ustaljena slikovna metoda za praćenje točnog intrakardijalnog položaja uređaja. Do sada je dokazan medicinski rizik izloženost ionizirajućim X zrakama što se posebno odnosi na pedijatrijsku populaciju i trudnice. Razvojem 3D elektroanatomskog sustava mapiranja smanjuje se potrebna korištenja fluoroskopije, te se uveo naziv »zero fluoro« što podrazumijeva proceduru bez korištenja iste.¹

Prikaz slučaja: Ovim prikazom slučaja iznosimo intraproceduralne aspekte korištenja »zero fluoro« RF ablacije kod 12-godišnjeg dječaka urađene u Kliničkom bolničkom centru Split kojem je dijagnosticiran WPW sindrom (simptomatska supraventrikularna tahikardija s delta valom u bazalnom EKG-u). Za elektrofiziološko ispitivanje koristio se pristup preko vena u desnom preponskom području uz pozicioniranje dijagnostičkih katetera u koronarni sinus te u desni ventrikul bez korištenja fluoroskopije. Ortodromna AVRT (engl. *atrioventricular reentrant tachycardia*) je lako inducirana te smo se odlučili za RF ablaciju koristeći »zero fluoro« princip. Aplikacijom jedne 40 W RF energije u proksimalnom koronarnom sinusu koristeći ablaćijski kateter s mogućnošću intraproceduralnog praćenja kontakta vrha ablaćijskog katetera s tkivom i postižući indeks veličine lezije od 7 uspješno nastupa prestanak vođenja kroz akcesorni put (AP). Ukupno trajanje procedure bilo je 51 minutu, što je i uključivalo vrijeme čekanja od 20 minuta za oporavak AP. Procedura je prošla bez komplikacija. Dan nakon procedure uradio se EKG koji nije pokazivao znakove anterogradnog provođenja kroz AP.

Zaključak: Korištenje »zero fluoro« RF ablacije koji pacijentata sa WPW sindromom je izvodljivo. Isto bi se trebalo koristiti kod osjetljive populacije kao što su pedijatrijski slučajevi ili trudnice.

Introduction: Percutaneous catheter, mostly radiofrequency (RF), ablation for supraventricular tachycardias is an established way of treating symptomatic patients. Traditionally, essential tool for guiding intracardiac catheter manipulation was X ray fluoroscopy. The risks of exposing patients to ionizing, X ray, radiation are well known, and are of particular concern in pediatric cases or cases involving pregnant women. Recently, with the help of electroanatomical (3D), mapping systems, a possibility to perform these procedures without the use of X ray fluoroscopy, so called »zero fluoro«, emerged.¹

Case report: This is a case report with an overview of some intraprocedural aspects of »zero fluoro« RF ablation procedure performed at University Hospital Centre Split in 12-year-old with the diagnosis of WPW syndrome (symptomatic SVT episodes with delta wave in native ECG). EP study was performed via right groin venous access and diagnostic catheters inserted in coronary sinus (CS) and right ventricle without the use of X ray. Orthodromic AVRT (atrioventricular reentrant tachycardia) was easily inducible and decision was made to proceed with the RF ablation with the intention of maintain »zero fluoro« principle. Single 40W RF application at proximal CS using contact force catheter and reaching the Lesion Size Index of around 7 abolished permanently accessory pathway conduction. Overall procedure time was 51 minutes, including 20 minutes waiting period for AP recovery. No complications occurred and the ECG the day after the procedure had shown no signs of anterograde AP conduction.

Conclusion: Zero fluoro approach to RF ablation in patients with WPW syndrome is feasible. It should be preferred approach in vulnerable population such as pediatric cases or cases involving pregnant women.

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LITERATURE

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