Atipični klinički tijek u bolesnice s herceptinskom kardiomiopatijom

Atypical clinical outcome in patient with herceptin-induced cardiomyopathy

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KLJUČNE RIJEČI: kardiotoksičnost, trastuzumab, ventrikulska tahikardija, implantabilni kardioverter defibrilator.

KEYWORDS: cardiotoxicity, trastuzumab, ventricular tachycardia, implantable cardioverter defibrillator.

CITATION: Cardiol Croat. 2016;11(10-11):393. | DOI: <http://dx.doi.org/10.15836/ccar2016.393>

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Uvod: Kardiotoksičnost uzrokovana trastuzumabom, humaniziranim monoklonskim protutijelom na HER2 protein koje se primjenjuje u imunoterapiji raka dojke, najčešće se manifestira reverzibilnim smanjenjem kontraktilnosti lijeve klijetke bez nekroze miokarda. Iako je relativno česta s incidencijom od 5-10%, prekidom terapije se u većine bolesnika postiže oporavak sistoličke funkcije te je moguć nastavak i završetak planiranog onkološkog liječenja. Rijetko ipak može doći i do napredovanja bolesti u ireverzibilnu dilatativnu kardiomiopatiju.^{1,3}

Prikaz slučaja: 55-godišnjoj bolesnici je 2008. godine učinjena segmentektomija lijeve dojke i evakuacija aksile zbog dukalnog mikroinvazivnog karcinoma (T1N2M0, HER-2 pozitivan). Nakon provedene kemoterapije (ACx6) i radioterapije (50 Gy u 25 ciklusa), planiran je nastavak adjuvantne imunoterapije trastuzumabom tijekom 1 godine u 3-tjednim ciklusima. Međutim, nakon 4. aplikacije trastuzumaba bolesnica se žalila na slabost i zaduhu pri minimalnom naporu. Ehokardiografski je utvrđen pad istisne frakcije lijeve klijetke (LVEF) na 25%, značajna mitralna i trikuspidna regurgitacija te visoka plućna hipertenzija. Liječenje trastuzumabom je trajno prekinuto. Na terapiju ACE inhibitorom, beta-blokatorom i diuretikom postignut je postupak, ali ne i potpuni oporavak LVEF na oko 40% te smanjenje MR i TR. Šest godina nakon prekida imunoterapije (u lipnju 2014. god.), bolesnica je hitno hospitalizirana u Kliničkom bolničkom centru Rijeka zbog simptomatske postojane ventrikulske tahikardije. Ehokardiografski je utvrđeno daljnje pogoršanje s LVEF od 25-30%, dok je koronarografija bila uredna. Bolesnici je implantiran trajni kardioverter defibrilator. Kontrolama nije registrirano novih ventrikulskih tahikardija, ali je u međuvremenu zbog učestalih paroksizama fibrilacije atrijske u terapiju uveden amidaron te antikoagulantna terapija. Do danas kod bolesnice nema znakova recidiva maligne bolesti dojke.

Zaključak: Iako je u većini slučajeva kardiotoksičnost uzrokovana trastuzumabom reverzibilna, ipak u dijela bolesnika dolazi do razvoja ireverzibilne dilatativne kardiomiopatije sa svim komplikacijama, uključujući i maligne ventrikulske aritmije. Pravodobnim i adekvatnim liječenjem moguće je značajno utjecati na produljenje i kvalitetu života takovih bolesnika.

Introduction: Trastuzumab is a humanized anti-HER2 monoclonal antibody, which is used for the immunotherapy of breast cancer. The most frequent manifestation of trastuzumab-induced cardiotoxicity is a reversible decrease in left ventricular contractility, without myocardial necrosis. It is quite often (occurs in 5 to 10% of patients) and in most cases, after the cessation of therapy, recovery of systolic function can be achieved. Rarely, there can be a progression to irreversible dilated cardiomyopathy.^{1,3}

Case report: A 55-year-old female patient with the breast carcinoma (T1N2M0, HER-2 positive) was done a segmentectomy of the left breast. After chemotherapy (ACx6) and radiotherapy (50 Gy), it was planned to start the immunotherapy with trastuzumab during 1 year in 3-week cycles. After the 4th cycle of trastuzumab, the patient started to feel weakness and dyspnea during a light physical activity. An echocardiographic examination showed a decrease of LVEF on 25%, significant mitral and tricuspid valve regurgitation and the high blood pressure in pulmonary artery. The treatment with trastuzumab was stopped. Therapy with ACE-inhibitor, beta-blocker and diuretic was started, what caused a gradual improvement of EF on 40% and reduction of MR and TR. Six years later the patient was admitted to University Hospital Centre Rijeka with symptomatic sustained ventricular tachycardia. Echocardiographic examination showed deterioration of LVEF on 25 to 30%. Coronarography was also done and it showed no pathology of coronary arteries. The patient was implanted a permanent cardioverter defibrillator. The further episodes of VT were not registered. Because of frequent paroxysms of atrial fibrillation, amiodarone and anticoagulant therapy were started. The patient is under regular controls of cardiologist and oncologist and has no signs of recidive of the cancer at the moment.

Conclusion: In most cases trastuzumab-induced cardiotoxicity is reversible, but there is a small number of patients who develop irreversible dilated cardiomyopathy with all complications of that disease, including malignant ventricular arrhythmias. By timely and adequate treatment, it is possible to prolong the life and to improve the quality of life in that group of patients.

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RECEIVED:
October 2, 2016

ACCEPTED:
October 10, 2016