Dijagnostički izazovi u liječenju bolesnika s kardiogenim šokom uzrokovanim lajmskom bolešću

Diagnostic challenges in treating patient with cardiogenic shock caused by Lyme disease

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Uvod: Lajmska bolest infektivna je bolest uzrokovana *Borreliom burgoferi* koja se prenosi ubodom zaraženog krpelja. Iako najčešće zahvaća kožu, zglobove i neurološki sustav, rijetko može biti uzrokom lajmskog karditisa.[1] Učestalost oštećenja miokarda u lajmskoj bolesti u Europi je do 4%, s 3 puta većom pojavnošću kod muškaraca. Tipična klinička značajka lajmskog karditisa su atrioventrikularne smetnje provođenja različitog stupnja, no također može uzrokovati srčano popuštanje kao posljedicu mioperikarditisa. Klinička manifestacija oštećenja miokarda u lajmskoj bolesti obično nastupa 1 do 2 mjeseca nakon početka infekcije. Ovo je prikaz slučaja bolesnika s kardiogenim šokom i kasnije potvrđenom lajmskom bolešću.

Prikaz slučaja: 71-godišnji bolesnik, s anamnestičkim podatom progresivne intolerancije napora unazad 2 mjeseca, hospitaliziran je u jedinici intenzivnog kardiološkog liječenja pod kliničkom slikom kardiogenog šoka s izrazito teško reduciranom sistoličkom funkcijom lijeve klijetke (EF 15%; 2016. godine EF bila 56%) i razvijenim znakovima kardiorenalnog sindroma tipa 1. Bolesnik nije imao bolova u prsnom košu, elektrokardiografskih znakova ishemije niti porasta kardioselektivnih enzima. Početno liječenje zahtijevalo je inotropnu potporu koja je uz ostale standardne mjere liječenja akutnog srčanog popuštanja dovela do postupnog kliničkog i ehokardiografskog poboljšanja (EF 31%). Koronarografski se prikazala značajna stenoza lijeve prednje silazne koronarne arterije u koju su implantirana dva stenta. Budući da infarkt miokarda nije bio uzrokom akutnog srčanog zatajivanja, istraženi su drugi mogući uzroci, primarno miokarditis. Epidemiološkom anamnezom otkriven je podatak o ubodu krpelja dva mjeseca prije hospitalizacije što je pobudilo sumnju na mogući lajmski karditis, iako praćenjem srčanog ritma nisu zabilježene smetnje atrioventrikularnog provođenja. Pozitivan serološki nalaz protutijela na *Boreliu burgdoferi* utvrđen imunoenzimskim i Western blot testom potvrdio je dijagnozu.

Zaključak: Oštećenje miokarda rijetka je komplikacija borelioze, ali s mogućim smrtnim ishodom. Iz tog razloga, detaljno uzeta anamneza i fizikalni pregled bolesnika od iznimne su važnosti za postavljanje ispravne dijagnoze i započinjanja odgovarajuće terapije.

Introduction: Lyme disease is a multisystem disease caused by infection with *Borelia burgdoferi* and spread by a tick bite. Even though it most commonly affects the skin, joints and nervous system, it can rarely cause Lyme carditis.[1] In Europe, cardiac involvement as a complication of Lyme disease occurs in up to 4%, with 3-fold higher male predominance. The most common clinical feature of Lyme carditis is atrioventricular (AV) conduction block of varying severity but may also include decreased cardiac contractility due to myopericarditis. These cardiac features typically occur one to two months after the onset of infection. We present a case report of a patient with cardiogenic shock and later confirmed Lyme disease.

Case report: 71-year-old patient, with two-month long history of progressive exertional dyspnea, was hospitalized in coronary intensive care unit due to cardiogenic shock with severely impaired left ventricular function (EF 15%; in 2016 EF was 56%) and developed signs of type 1 cardiorenal syndrome. The patient had no chest pain, no electrocardiographic signs of ischemia nor elevation of cardiac biomarkers. The patient initially required inotropic support that with other standard treatment for acute heart failure gradually led to clinical and echocardiographic improvement (EF 31%). The patient then underwent coronary angiography that showed diseased left anterior descending coronary artery that was treated with two stents. Since acute myocardial infarction was not the cause of acute heart failure, other possible causes were investigated, primarily myocarditis. More detailed clinical history revealed tick bite about two months prior to hospital admission, which rose suspicion of Lyme carditis, even though the patient had no registered AV conduction disturbances. An enzyme-linked immunosorbent assay and Western blot both came seropositive for *Borelia burgdoferi* antibodies, confirming the diagnosis.

Conclusion: Lyme carditis is a rare manifestation of boreliosis with possible lethal complications. Therefore, detailed clinical history and physical examination are crucial for making correct diagnosis and giving the right treatment.

LITERATURE

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