From left ventricular hypertrophy to Waldenström macroglobulinemia: a case report

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Background: Left ventricular hypertrophy (LVH) is a common cardiac finding generally caused by an adaptation of the myocardium to increased pressure or volume load, or systemic conditions or genetic mutations[1]. Amyloidosis still remains a mysterious disease, with extremely diverse palette of symptoms and poor prognosis, caused by extracellular deposits of autological proteins with a fibrillar ultrastructure and specific properties. According to anatomical and clinical criteria, it can be presented as systemic or localized type[2].

Case report: 61-year-old male with history of dyspnea for two years, syncope relapse and mild hypertension was hospitalized. The main findings were lower voltage in ECG precordial leads, increased level of NT-proBNP, mild normocytic anemia, thrombocytopenia, accelerated erythrocyte sedimentation, elevated creatinine serum level and urine proteinuria. Transthoracic echocardiography showed LVH with restrictive diastolic pattern and typical strain finding for amyloidosis. Monoclonal gammopathy IgM type λ was approved by electrophoresis and immunoelectrophoresis. Abdominal CT scan showed appearance of paraaortic, retroperitoneal and mesenteric lymphadenopathy; lymphatic cells were found in the cytological punctate of the lymph node, while biopsy of fat tissue and rectal biopsy were negative. Heart MRI approved infiltrative heart disease, and heart biopsy deposits of amorphous material and Congo red staining was positive for amyloidosis. Waldenström macroglobulinemia with an unusual presenting of systemic amyloidosis and heart involvement was diagnosed.

Conclusion: LVH is most common echocardiographic finding although the cause itself is not always easy to find. This case shows a rare example of systemic amyloidosis associated with Waldenstrom's macroglobulinemia[3]. Modern diagnostic techniques are available with increased chance of diagnosing the rare diseases, but still the most important fact is to be aware of these conditions.

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LITERATURE

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