EPICARDIAL ADIPOSE TISSUE IN PATIENTS WITH PROLACTINOMA

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Aim: Hyperprolactinemia is associated with endothelial dysfunction and atherogenic risk factors. Epicardial adipose tissue (EAT) is a type of visceral fat. There is a strong relationship between the quantity of epicardial fat and general body adiposity. Growing evidence suggests that EAT may play a key role in the pathogenesis and development of coronary artery disease (CAD). But EAT has not been studied in hyperprolactinemic patients. The aim of the present study is to measure the echocardiographic EAT with anthropometric and clinical parameters in patients with prolactinoma.

Methods: This study was designed as a cross-sectional case-control study. The study included 30 untreated hyperprolactinemic patients with pituitary adenomas, and 30 age-, gender-, and BMI-matched healthy controls without any known disease. The body fat percentage was measured via bioelectrical impedance. EAT thickness was measured using echocardiography. All statistical analyses were performed using SPSS v.16.0.

Results: There were no significant differences in age, BMI, fat mass, total cholesterol, HDL and triglycerides and HOMA scores between groups (p>0.05). EAT is measured 5.47±1.79 mm at the patients with prolactinoma while it is measured 3.87±1.14 mm at the control group, and the significant difference is detected between two groups (p=0.001).

Conclusion: EAT thickness therefore could serve as an easily measurable non-invasive adjunctive marker to classical risk factors for the prediction of CAD. The risk of cardiovascular disease in prolactinoma patients remain unclear. In the present study we detected significantly increased EAT in patients with prolactinoma. In conclusion, evaluation of EAT in future studies could be beneficial in determining the risks for cardiovascular disease in patients with prolactinoma.