Utjecaj antropometrijskih čimbenika na koncentraciju rezistina u serumu kod bolesnika s hemodinamski značajnom stenozom karotidnih arterija

The influence of anthropometric factors on the concentration of resistin levels in patients with hemodynamically significant carotid artery stenosis

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Uvod: Najvažniji patofiziološki mehanizam razvoja karotidne aterosklerotske bolesti jest upalni proces. S ciljem boljeg razumijevanja istog proučavani su brojni biomarkeri među kojima i rezistin. Rezistin je peptid koji intenzivira razvoj ateroskleroze stimulirajući monocite, endotelne stanice i stanice glatkog mišića na razvoj upale vaskularnog endotela.¹ Cilj: Poznata je povezanost rezistina s inzulinskom rezistencijom, pretilošću i šećernom bolešću. Ovdje ćemo prikazati rezultate podanalize istraživanja o povezanosti rezistina s histološkom slikom aterosklerotskog karotidnog plaka s osvrtom na utjecaj antropometrijskih čimbenika (dob, spol, tjelesna visina, tjelesna masa i opseg struka) na serumsku koncentraciju rezistina.

Pacijenti i metode: U istraživanje je uključeno 78 bolesnika (30 žena) sa značajnom stenozom karotidne arterije kojima je planirana elektivna endarterektomija. Bolesnicima pred zahvat endarterektomije određena koncentracija rezistina u serumu (1967,15-18619,73, srednja vrijednost 7552,3162 pg/ml) te su utvrđene antropometrijski podatci kako slijedi: dob (45-84; srednja dob 66,83 godine), tjelesna visina (148-187; srednja visina 168,78 cm), tjelesna masa (47-110, srednja masa 80,49 kg), te opseg struka (75-122, srednji opseg 101,27 cm).

Rezultati: Podanalizom podataka utvrđena je statistički značajna pozitivna povezanost koncentracije rezistina s opsegom struka ($p=0.003$) i muškim spolom ($p=0.008$).

Zaključak: Navedeni rezultati ukazuju na jasnu povezanost klasičnih rizičnih čimbenika ateroskleroze i relativno novog upalnog markera rezistina. Potrebna su daljnja istraživanja kako bi se potvrdila mogućnost korištenja rezistina kao markera stupnja aterosklerotske bolesti.

Introduction: The most important pathophysiological mechanism of development of carotid atherosclerotic disease is an inflammatory process. With the aim of better understanding of the process, numerous biomarkers were studied including resistin. Resistin peptide intensifies development of atherosclerosis by stimulating monocytes, endothelial cells and smooth muscle cells in the development of inflammation of the vascular endothelium.¹ Aim: Connection between resistin with insulin resistance, obesity and diabetes is well known. Here we present the results of subanalysis research of the relationship between resistin and histology of an atherosclerotic carotid plaque with emphasis on the impact of anthropometric factors (age, sex, body height, body weight and waist circumference) on the serum concentration of resistin.

Patients and Methods: The study included 78 patients (30 women) with significant carotid artery stenosis which were planned for elective endarterectomy. Before the surgery concentration in serum resistin (1967.15-18619.73, mean 7552.3162 pg/ml) were measured and anthropometric data were determined as follows: age (45-84; mean age, 66.83 years), body height (148 to 187; mean height 168.78 cm), body weight (47-110, average weight 80.49 kg), and waist circumference (75-122, midrange 101.27 cm).

Results: Subanalysis of data showed statistically significant positive correlation between the concentration of resistin with waist circumference ($p = 0.003$) and male gender ($p = 0.008$).

Conclusion: These results indicate a clear connection between the classic risk factors for atherosclerosis and relatively new inflammatory marker resistin. Further research is needed to confirm the possibility of using resistin as a marker of atherosclerotic disease.

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LITERATURE

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