Incidencija i dugoročne posljedice arteriovenskih fistula nastalih nakon koronarne angiografije

Incidence and long term consequences of arteriovenous fistula after invasive coronary angiography

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CILJ RADA: Nakon femoralnog vaskularnog pristupa za koronarnu angiografiju možemo očekivati lokalne komplikacije: hematoma, retroperitonealno krvarenje, pseudoaneurizmu, arteriovensku fistulu (AVF), okluziju arterije i infekciju. AVF se prema literaturi javljaju u 0,2-2,1%. Rizici za nastanak fistule su: višestruki pokušaji punkcije, previsoko ili prenisko ubodno mjesto, poremećaj zgrušavanja. Rizici na koje operater ne može utjecati su: spol, starija životna dob, debljina i renalna insuficijencija. Cilj je istražiti incidenciju AVF na našoj klinici uz procjenu dugoročnih posljedica.

PACIJENTI I METODE: Od siječnja 2008. do prosinca 2013. učinjeno je 6.017 koronarografija. AVF imalo je 0,7% pacijenata. U vrijeme ispitivanja 5 pacijenata s AVF je umrlo, a njih 7 nije željelo sudjelovati u ispitivanju. Kod preostalih 36 pacijenata učinio se: Doppler vena donjih ekstremiteta, Doppler na mjestu ranije AVF i ehokardiografija.

REZULTATI: Od 36 pacijenata s ranije dijagnosticiranim AVF, kod njih 16 na kontrolnom ultrazvuku se ne nalazi znakova arteriovenske komunikacije. Preostalih 20 pacijenata i dalje ima AVF, njih 5 nema tegobe, dok se preostalih 15 bolesnika žali na nelagodu u nozi. Ehokardiografski se verificirala samo kod jednog bolesnika s AVF dilatacija kaviteta desne strane srca. Kod 3 pacijenata s AVF zabilježila se blaga plućna hipertenzija, što nije nađeno u grupi pacijenata bez AVF. Prosječni tlak u desnoj klijetki je značajno viši u grupi s AVF (RVSP 22 mmHg, 16 mmHg, $p < 0,01$). Nije bilo značajne razlike u sistoličkoj funkciji desne klijetke (TAPSE 19 mm, 21 mm).

ZAKLJUČAK: Lokalne vaskularne komplikacije ostaju značajan uzrok povećanog morbiditeta, mortaliteta i produženja hospitalizacije. Incidencija AVF je 0,7%, a u 44% se spontano zatvorila. Većina bolesnika s AVF se žalila na nelagodu u nozi uz signifikantno viši tlak u desnom ventrikulu, ali rijetko i blagu plućnu hipertenziju. Preporučuje se kliničko praćenje bolesnika s AVF i eventualna kirurška korekcija.

AIM: Femoral vascular access site complications including: hematoma, retroperitoneal hemorrhage, pseudoaneurysm, arteriovenous fistula (AVF), arterial occlusion, femoral neuropathy and infection. AVF occurs according to literature from 0.2 to 2.1%. The goal was to find out incidence of AVF and their long term consequences.

PATIENTS AND METHODS: From January 2008 until November 2013 a total of 6017 coronary angiographies were performed. AVF had 48 patients, respectively 0.7%. At time of research, 5 patients died and 7 patients did not want to be involved. To the remaining 36 patients, lower extremities venous Doppler and previous AVF site Doppler, as well as echocardiography were performed.

RESULTS: From 36 patients with previously diagnosed AVF, 16 patients at the control ultrasound had no visible arteriovenous communication, 20 patients had still open AVF. In group with open fistula 5 patients had no complaints, 15 patients complained of discomfort in the respective leg. Echocardiography in the group of patients with AVF showed only in one patient dilation of right atrium and ventricle. In 3 patients with persistent AVF mild pulmonary hypertension was found, but none in group without AVF. The average pressure in right ventricle measured on tricuspidal regurgitation was significantly higher in a group with AVF, than without (RVSP 22 mmHg, 16 mmHg, $p < 0.01$). There was no significant difference in a systolic function of right ventricle (TAPSE 19 mm, 21 mm).

CONCLUSION: Vascular site complications remain an important cause of increased morbidity, mortality and prolongation of hospital stay. AVF in our hospital occurred in 0.7% patients and 44% of it closed spontaneously. Mostly patients with fistula had local complaints and they had significantly higher right ventricular pressures, but rarely with mild pulmonary hypertension. Clinical monitoring of patients and decision about surgical correction are recommended.

LITERATURE

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