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ORIGINAL ARTICLE

Clinical characteristics and long-term outcome of patients with acute coronary syndromes and Takayasu arteritis☆

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KEYWORDS
Takayasu arteritis;
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Abstract
Introduction: Monitoring of disease activity and the best therapeutic approach are a challenge in Takayasu arteritis (TA). When associated with acute coronary syndromes (ACS), the best interventional treatment has not been established. The objective of this study was to describe the baseline characteristics, clinical manifestations, treatment and long-term outcome of patients with TA and ACS.
Methods: We retrospectively analyzed eight patients between 2004 and 2010. The following data were obtained: age, gender, clinical and electrocardiographic manifestations, Killip class, risk factors for ACS, markers of myocardial necrosis (CK-MB and troponin), creatinine clearance, left ventricular ejection fraction, inflammatory markers (C-reactive protein and erythrocyte sedimentation rate [ESR]), medication during hospital stay, angiographic findings, treatment (medical, percutaneous or surgical) and long-term outcome. Statistical data were expressed as percentages and absolute values.
Results: All eight patients were women, median age 49 years. Typical chest pain was present in 37.5%. Elevated ESR was observed in 85.7%. Three patients underwent coronary artery bypass grafting, three underwent percutaneous coronary angioplasty (two with bare-metal stents and one with a drug-eluting stent) and two were treated medically. In-hospital mortality was 25%. There were no deaths during a mean follow-up of 30 months.
Conclusions: In our study, patients who were discharged home had good outcomes in long-term follow-up with medical, percutaneous or surgical treatment. ESR appears to be associated with ACS in TA.

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PALAVRAS-CHAVE
Arterite de Takayasu;
Síndrome coronária aguda;
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Inflamação

Características clínicas, angiográficas e evolução a longo prazo em pacientes com arterite de Takayasu e síndrome coronária aguda

Resumo
Introdução: A monitoração da atividade da doença e o melhor esquema terapêutico ainda têm sido um desafio em pacientes com arterite de Takayasu (AT). Em síndromes coronárias agudas (SCA) a melhor forma de tratamento intervencionista mantém-se indefinido. Dessa forma, descrevemos as características basais, manifestações clínicas, achados angiográficos, tratamento definitivo adotado e a evolução a longo prazo de pacientes com AT que apresentaram SCA.
Métodos: Entre 2004 e 2010, foram analisados retrospectivamente 8 pacientes com AT que apresentaram SCA. As seguintes informações foram obtidas: idade, sexo, manifestações clínicas e eletrocardiográficas, estado hemodinâmico, fatores de risco para SCA, marcadores de necrose miocárdica, clearance de creatinina, fração de ejeção de ventrículo esquerdo, marcadores inflamatórios, medicações utilizadas, achados angiográficos, tratamento definitivo adotado e evolução a longo prazo.
Resultados: Os 8 pacientes eram mulheres. A mediana de idade foi 49 anos. Dor precordial típica esteve presente em 37,5%. Cerca de 85,7% apresentaram aumento de velocidade de hemossedimentação. O seguimento mais acometido foi o tronco da coronária esquerda em 62,5%. Em 3 casos optou-se por revascularização cirúrgica, em 2 pacientes realizou-se angioplastia com *stent* convencional, em 1 com *stent* farmacológico e em 2 doentes manteve-se tratamento clínico. Obteve-se mortalidade intra-hospitalar de 25% e em seguimento médio de 30 meses não houve mortes.
Conclusão: Em pacientes que sobreviveram ao quadro agudo e receberam alta hospitalar, bons resultados a longo prazo foram obtidos principalmente com tratamento clínico ou cirúrgico. A velocidade de hemossedimentação parece estar mais relacionada à ocorrência de quadros de SCA em pacientes com AT.

Introduction

Takayasu arteritis (TA) is a chronic inflammatory disease of unknown etiology that affects large blood vessels, mainly the aorta and its main branches and the pulmonary and coronary vessels.[1] Its rarity means that monitoring of disease activity and the best therapeutic approach are a challenge. When associated with acute coronary syndromes (ACS), the best interventional treatment has not been established. The results in case series of treatment by percutaneous transluminal coronary angioplasty (PTCA) and/or coronary artery bypass grafting (CABG) are inconsistent.[1] Against this background, we describe the baseline characteristics, clinical manifestations, angiographic findings, treatment and long-term outcome of patients with TA and ACS.

Methods

We retrospectively analyzed eight patients with TA and ACS (unstable angina or myocardial infarction [MI]) between 2004 and 2010. The diagnosis of TA was based on the 1990 criteria of the American College of Rheumatology (age at disease onset <40 years, difference in blood pressure between limbs >10 mmHg, bruit over aorta, arteriogram abnormality on arteriography, Doppler ultrasound or computed tomography (CT) angiography.[1]

All patients with typical chest pain were immediately classified as having ACS and stratified according to clinical presentation. Those with atypical pain and/or equivalent ischemic symptoms, such as dyspnea, were managed on the basis of a chest pain protocol, remaining under observation for 12 hours with ECG and testing of markers of myocardial necrosis (troponin and CK-MB) every three hours. Those with ST-segment depression on the ECG and/or positive myocardial necrosis markers were diagnosed with ACS and thus included in the study. The three cases with typical chest pain had normal ECG and myocardial necrosis markers, while the other five, with atypical pain and/or dyspnea, had ECG alterations or positive necrosis markers.

The following data were obtained: age, gender, clinical and electrocardiographic manifestations, Killip class, risk factors for ACS, markers of myocardial necrosis (CK-MB and troponin), creatinine clearance, left ventricular ejection fraction, inflammatory markers (C-reactive protein and erythrocyte sedimentation rate [ESR]), medication during hospital stay, angiographic findings, treatment (medical, percutaneous or surgical) and long-term outcome.

Data were also acquired on anatomical arterial lesions detected by conventional and/or CT angiography. Stenosis of $\geq$70% was considered significant in both systemic and coronary vessels.

In cases of PTCA, the type of stent (bare-metal or drug-eluting) was recorded, as were types of arterial or venous grafts used in CABG.