Image in cardiology

Congenital Septal Aneurysm and Embolic Myocardial Infarction

Aneurisma congénito del septo e infarto embólico

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We present the case of a 32-year-old woman with a diagnosis of lateral myocardial infarction, with little electrical expression (Figure A), secondary to coronary thromboembolism with congenital aneurysm of the left ventricle as the embolic source.

On coronary angiography, the left coronary artery, the left anterior descending, the circumflex and the right coronary artery were angiographically normal, with a thrombus in the distal segment of the main obtuse marginal artery (Figure B and arrow in Figure C) compatible with coronary embolism. Ventriculography showed a moderately dilated left ventricle with an accessory cavity of the basal inferior segment (Figure D, asterisk). Echocardiography confirmed the presence of an inferobasal and basal septal ventricular aneurysm, protruding into the right ventricle, but not communicating with it (Figure E, asterisk). The aneurysm affected mainly the muscular interventricular septum, with minimal involvement of the membranous septum. On cardiac magnetic resonance there was no enhancement, indicating fibrosis or thrombus in the interior (Figure F, asterisk).

Congenital aneurysms affecting the muscular interventricular septum are extremely uncommon, especially those located in the basal segment. Apical aneurysms, those of the subvalvular free wall, and those affecting the membranous interventricular septum are a little more common. In the medical literature there are fewer than 20 cases, most being in pediatric patients.

The etiology and natural history are not well-known. Various clinical manifestations have been described, such as supraventricular and ventricular arrhythmias, heart failure, peripheral emboli (cerebral infarction), endocarditis, rupture, cardiac tamponade, and even sudden death. However, to date, there have been no published cases with coronary embolism as the clinical presentation.

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