CORONARY ARTERY DISEASE SCREENING IN AIRCREW MEMBERS: A FRENCH RETROSPECTIVE STUDY

DÉPISTAGE DE LA MALADIE CORONAIRE DANS LA POPULATION NAVIGANTE: UNE ÉTUDE RÉTROSPECTIVE FRANÇAISE

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Introduction: Coronary artery disease (CAD) is a major preoccupation for flight surgeons because of the risk of in-flight incapacity. That's why the prevention and the screening of CAD among aircrew members (AM) are systematic. The constant progress of cardiological tests, especially imaging, can help the flight surgeon to diagnose a CAD in AM before the clinical stage.

Methods: The aims of this study are to describe the population of AM with a diagnosis of CAD, and to analyze the investigations that led to the diagnosis. All the medical files of AM suffering from CAD were extracted from the 86,691 files of AM who were examined in our aeromedical center from 01/01/2010 to 12/31/2015.

Results: Our population was composed of 120 AM with CAD (mean age: 53.2 +-/8.9yo, 98.3% males, 79.2% civilians, 76.7% pilots). CAD was discovered based on acute cardiovascular events (myocardial infarction/sudden death) for 55% of the population, and on moderated symptoms (chest pain, dyspnea, palpitations) for 22.5%. For the remaining 22.5%, the diagnosis was posed thanks to the systematic resting electrocardiogram or thanks to investigations (exercise test, coronary tomography, cardiac MRI, myocardial scintigraphy) as a result of an increased cardiovascular risk.

Discussion: Coronary tomography and stress tests are interesting tools as they allowed in our study an early diagnosis of CAD before the onset of symptoms or acute events for some aircrew. Nonetheless, more than the half of our population was diagnosed after myocardial infarction or sudden death. The systematic evaluation of cardiovascular risk among aircrew members seems mandatory, and the use of cardiological tests needs to be discussed.