

Title: Management of Metabolic Syndrome in Tunisian Military Pilots

DJEMAIEL Hanene*; AYED Asma*; SOUISSI Amel*; ELHANI Iadh*; BEN DHIA Imededdine*;
KHELIFI Touhami*

*Tunisian Aeromedical Center.

Summary: The metabolic syndrome is one of the major public health problems worldwide. It is associated with development of cardiovascular disease, stroke and diabetes mellitus, conditions that are disabling for military pilots, and can cause sudden or subtle incapacitation in flight.

The aim of this study is to determine the prevalence of the metabolic syndrome among Tunisian military pilots, to explain its implication in flight safety and to insist on the importance of prevention in its therapeutic management.

Methods and Results: It's a descriptive retrospective study including 150 Tunisian military pilots regularly monitored at the Tunisian aeromedical center, over a period of 5 years. We collected, from their computerized medical records, metabolic syndrome components (waist circumference, blood pressure, blood glucose test, triglyceride and high density lipoprotein). The metabolic syndrome was defined according to the National Cholesterol Education Program (NCEP) Adult Treatment Panel (ATP III).

All our pilots were male, with a mean age of 45 [30- 60 years]. In the studied population, the prevalence of the metabolic syndrome was 19%. It increased with the age. The distribution of individual metabolic abnormalities of the metabolic syndrome is as follows: abdominal obesity 56.5%, high blood pressure 10%, high fasting glucose 10%, hypertriglyceridemia 64%, and low HDL cholesterol 2%.

Conclusions: The prevalence of metabolic syndrome in this population is sufficiently high to be a matter of medical concern. Therefore, the expert medical doctor conducting periodic medical examination should play a proactive role in identifying pilots affected and advocating their lifestyle modifications to maintain the optimal performance in their operational missions.