

INTRODUCTION

Acute coronary syndromes (ACS) are conditions characterized by the sudden onset of coronary insufficiency as a result of thrombotic occlusion of one or more coronary arteries. Three such conditions are identified: ST-segment elevation myocardial infarction (STEMI), non-ST-segment elevation myocardial infarction (non-STEMI), and unstable angina (UA). The first condition STEMI is the result of complete and sustained thrombotic coronary occlusion, while the last two conditions non-STEMI and UA are the result of either partial thrombotic coronary occlusion or transient complete occlusion with spontaneous revascularization (**Goldberg et al, 2004**).

Unstable angina, ST-elevation and non-ST-elevation myocardial infarction, collectively known as the acute coronary syndromes, are leading causes of morbidity and mortality in developing countries (**Murphy et al, 2003**).

Notably, acute coronary syndromes are often complicated by the presence of co-existing health problems, such as anemia (**Sachdev et al, 2004**).

Anemia is defined according to World Health Organization (WHO) criteria: hematocrit value <39% for men and <36% for women (**Sachdev et al, 2004**).

Anemia may compromise oxygen supply to infarcted or ischemic myocardium, which may promote arrhythmias, worsen hypotension, and increase infarct size (**Murphy et al, 2003**).

Anemia contributes to the development of left ventricular hypertrophy, mainly via increased cardiac output and also results in increase in left ventricular mass, while in others it also results in left ventricular end-diastolic volume dilation. These changes increase the risk of arrhythmias, myocardial infarction, and myocardial fibrosis (**Mann et al, 1999**).