Age differences in patients presenting with acute coronary syndrome – does age influence the severity of the disease and outcome?

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Introduction: Acute coronary syndrome (ACS) mainly occurs in patients over 50 years of age, but younger patients can also be affected.^{1,2}

Patients and Methods: This retrospective observational study was conducted in our cardiovascular department in an eight-month period. The cutoff of 50 years was used to determine clinical characteristics and outcomes of patients younger than 50 years (YP) comparing them with older than 50 years (OP).

Results: Among the 219 patients with ACS, 26 (11.8%) were YP. Women were affected in 11.5% in YP and 32.1% in OP group. There were no female patients younger than 46 years. Compared to OP, YP had the lower prevalence of previous myocardial infarction (3.8% vs. 17.1%) and previous PCI (3.8% vs. 11.9%). Cerebrovascular disease was present in 5.7% and peripheral artery disease in 6.7% of OP, while in YP both were not observed. Previous cardiovascular risk factors were present in YP: smoking 65.4% vs. 29.4% in OP; arterial hypertension 57.7% vs. 75.6%; diabetes 26.9% vs. 23.8%; hyperlipidemia 42.3% vs. 61.6%. Beta blockers were used in 19.2%, ACE inhibitors in 3.8% and statins in 11.5% of YP, while 27.9%, 33.6% and 24.8% in OP. Mean hospitalization stay was 5.26 days in YP (median 4 days) and 7.38 in OP (median 5 days). Culprit coronary artery was in YP RCA in 42.8%, LAD in 28.6% and ACx in 28.6%, while in OP RCA in 37.7%, LAD in 41.3% and ACx in 21.0%. In YP, type A lesion was present in 19%, type B in 42.8%, type C in 4.8% and coronary occlusion in 33.4%; while in OP 21.4%, 32.4%, 13.1% and 33.1%. YP had fewer coronary segments involved (2.92 vs. 3.46). A median value of percent of luminal stenosis was 99% in both groups (mean value of 91% in YP and 94.7% in OP). The mean number of stents implanted was higher in YP (1.46 vs. 1.17). GpIIb/IIIa inhibitor was used in 30.7% of YP vs. 15% of OP.

Discussion and Conclusion: Patients younger than 50 years present smaller percentage of ACS patients. Our study showed no differences between the percentage of complete vessel occlusion in YP and OP. Among cardiovascular risk factors, greatest difference was seen in smoking. YP had less documented arterial hypertension, hyperlipidemia, and rate of previous drug use. RCA and ACx were more frequent culprit in YP and LAD in OP. YP had less coronary segments affected but higher rates of implanted stents and more need for antiplatelet GpIIb/IIIa therapy.

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LITERATURE

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