

Severity and Pattern of Coronary Artery Disease in Patients with Cardiovascular Dysmetabolic Syndrome

Jamil AA, Haque KMHSS, Mamun AA, Siddique MA, Banerjee SK, Zaman SMM, Islam MN, Ahmed QS, Rahman SMM.

Methods:

A cross-sectional study was carried out in the Department of Cardiology, Bangabandhu Sheikh Mujib Medical University, Dhaka in collaboration with Department of Cardiology, CMH, Dhaka Cantonment from June 1999 to May 2000. The patients clinically diagnosed or documented to have coronary artery disease (CAD) requiring coronary angiography (CAG) were included in the study, and were grouped into patients with Cardiovascular Dysmetabolic Syndrome (CDS Group) and without CDS (non-CDS group). The CDS was diagnosed by using the diagnostic criteria defined by Western Working Group, Hawaii, in 1997, Patients with hypertrophic and dilated cardiomyopathies, valvular and congenital heart diseases, and other systemic diseases were excluded from the study. Other CAD risk factors, i.e. Smoking, family history of CAD and physical inactivity were also analyzed. The CAG findings were analyzed in terms of severity and pattern of coronary lesions and were compared between the groups.

Results:

Among 132 patients 101 (76.5%) were in CDS group and 31 (23.5%) were in non-CDS group. The mean ages of the two groups were 50.21 ± 8.08 and 44.03 ± 11.89 years respectively. Triple vessel disease was more common in patients with CDS than non-CDS patients [27 (26.73%) vs 2 (6.45%); $P < 0.001$]. Analysis of involvement of individual coronary artery revealed LCX [28 (27.72%) vs 4 (12.90%), $P < 0.05$] and OM [30 (29.70%) vs 3 (9.68%), $P < 0.05$] were involved significantly more in CDS patients than the non-CDS patients. There were no significant differences in involvement of other epicardial vessels between the two groups (> 0.05), Lesions causing 70-95% stenosis were most frequent [47% vs 40% ($P > 0.05$)] in both the groups. Totally occlusive lesions were significantly more common in CDS patients than in non-CDS group [28 (9.18%) vs 2 (3.08%): $P < 0.05$]. In terms of extent of CAD the difference of extant index between the groups was

highly significant [0.353 ± 0.384 vs 0.202 ± 0.207 ($P<0.001$)], Regarding pattern of CAD the CDS patients had significantly more diffuse disease than non-CDS patients [49 (48.51%) vs 9 (29.03%), $P<0.05$].

Conclusion:

CDS patients have higher triple vessel disease, increased totally occlusive lesions, and more extensive and diffuse disease as compared to the patients without the syndrome.

-
1. *Bangabandhu Sheikh Mujib Medical University. 2. Khulna Medical College, Khulna, Bangladesh;*
 2. *National Institute of Cardiovascular Diseases, Dhaka, Bangladesh;*
 3. *Combined Military Hospital, Dhaka Cantonment, Dhaka Bangladesh.*