Others

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ASSOCIATION BETWEEN ERECTILE DYSFUNCTION AND SEVERITY OF CORONARY ARTERY DISEASE: OBSERVATIONS FROM A CORONARY ANGIOGRAPHIC STUDY IN ASIAN INDIANS

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Objectives Erectile dysfunction (ED) and coronary artery disease (CAD) often share common risk factors and there is growing evidence that ED might serve as a clinical marker for cardiovascular disease. Despite rising trends of CAD in Asian Indians, limited data are available on prevalence of ED and its correlation with CAD severity in such patients.

Aim To study the prevalence of ED in Asian Indian patients undergoing coronary angiography and assess if the severity of ED correlates with angiographic severity of CAD.

Methods The prevalence of ED was assessed using the International Index of Erectile Function IIEF-5 questionnaire, amongst 175 male patients undergoing coronary angiography. Any degree of Erectile Dysfunction was present in 70%; it was severe in 39.2%, moderate in 23.5%, mild to moderate in 22.7% and mild in 14.6%. Patients with ED had higher incidence of multi-vessel CAD (80% vs 36%, p 0.001), diffuse CAD (81% vs 34%, p 0.001) and higher number of mean coronary vessels involved compared to those without ED. Mean IIEF score in patients with single vessel, double vessel and triple vessel CAD was 18.4 ± 5.8 , 14.4 ± 5.8 and 9.5 ± 5.9 respectively ($p < 0.001$ for each group); mean IIEF-5 score for patients with diffuse CAD was also significantly lower (12.1 ± 6.5) as compared to those without diffuse CAD (19.1 ± 6.5 , $p < 0.001$).

Patients with **severe** ED had higher prevalence of multi-vessel CAD and higher number of mean coronary vessels involved compared to those with milder grades of ED. Onset of symptoms of ED preceded symptoms of CAD by a mean of 24.6 months in 84% patients. Presence of severe ED was associated with a 21 fold higher risk of having triple vessel disease (OR 21.94, 95% CI 3.41 to 141.09, $p=0.001$) and 18 fold higher risk of having diffuse angiographic CAD (OR 17.91, 95% CI 3.11 to 111.09, $p=0.001$).

Results The prevalence of ED was assessed using the International Index of Erectile Function IIEF-5 questionnaire, amongst 175 male patients undergoing coronary angiography. Any degree of Erectile Dysfunction was present in 70%; it was severe in 39.2%, moderate in 23.5%, mild to moderate in 22.7% and mild in 14.6%. Patients with ED had higher incidence of multi-vessel CAD (80% vs 36%, p 0.001), diffuse CAD (81% vs 34%, p 0.001) and higher number of mean coronary vessels involved compared to those without ED. Mean IIEF score in patients with single vessel, double vessel and triple vessel CAD was 18.4 ± 5.8 , 14.4 ± 5.8 and 9.5 ± 5.9 respectively ($p < 0.001$ for each group); mean IIEF-5 score for patients with diffuse CAD was also significantly lower (12.1 ± 6.5) as compared to those without diffuse CAD (19.1 ± 6.5 , $p < 0.001$).

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Conclusions Asian Indians with angiographic CAD frequently have ED; symptoms of ED precede that of CAD in most patients. Incidence of multi-vessel and diffuse CAD is significantly more common in patients with ED. It is important for physicians to be aware of the close relationship between the two conditions so that patients with ED can have optimal risk stratification for concomitant CAD whenever required.