

Discussion

Coronary artery anomalies are found in 0.6-1.5% of coronary angiograms. Although most of them have no clinical significance, they may cause acute myocardial damage and/or chronic injuries in the area supplied by the anomalous coronary artery arising from the incorrect coronary sinus of Valsalva.^{1,4,5} Some coronary artery anomalies may cause chest pain, arrhythmia, heart failure, and sudden death.⁶ Myocardial ischemia can occur because of earlier and more aggressive atherosclerosis compared to a normal coronary artery⁷ that was found exclusively in anomalous vessels arising from the right side with a retroaortic course.⁸ The anomalously originating Cx artery generally arises posterior to the RCA, and courses inferiorly and posteriorly to the aorta to enter the left atrioventricular

groove.² A study confirmed that the incidence of stenosis was greater in the Cx arteries originating from the right coronary sinus compared to normal Cx originating from the LMCA.⁹ Although the anomaly is common, to our best of knowledge double Cx anomalies are rare with only few cases reported in the literature. Karabay *et al.* presented a case of twin Cx arteries arising from left and right coronary systems with acute inferior myocardial infarction treated by PCI,⁶ as in our case. Including that case,⁶ dual Cx arteries arising from the left and right coronary systems have been reported in only three cases.^{5,10,11} Double Cx artery cases have been reported with both of them originating from the left coronary systems,¹² and from the left system and aorta, respectively.¹³

The case we presented was suffering from severe heart failure due to ischemic injury as proved by the elevated cardiac enzymes and the ECG finding. The significant stenoses of both the anomalously and normally originating Cxs were successfully treated by balloon angioplasty and stenting.

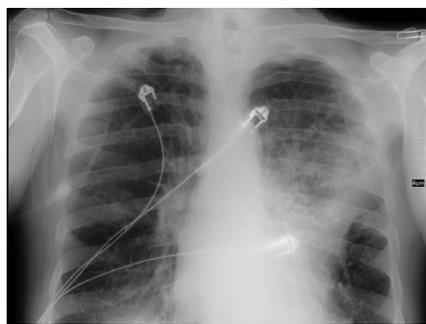


Figure 2. Chest X-Ray indicates cardiomegaly, interstitial oedema, and fibrotic scar from previous lung infection.

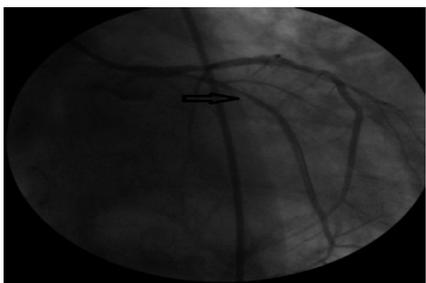


Figure 3. The Left Cx with a 70% stenosis in its mid portion.

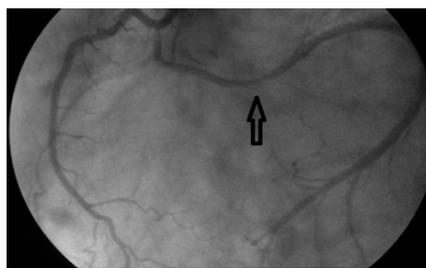


Figure 4. The Right Cx with a 70% stenosis in its mid portion.

Conclusions

In patients with diminished left ventricular systolic function and/or progressive dyspnoea, coronary artery anomalies should be suspected and coronary angiography should be performed in order to exclude or show additional atherosclerotic disease, and PCI may be used as a treatment of choice in comparison with medical and/or surgical intervention.

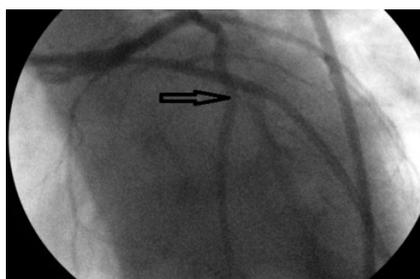


Figure 5. The Left Cx after PCI.



Figure 6. The Right Cx after PCI.

References

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