P-158

Pericardium-covered stent implantation in a complicated giant coronary artery aneurysm in an adolescent boy

Meşe T. (1), Yilmazer M.M.(1), Nazlı C.(2), Varış E.(2), Güven B.(3)
Department of Pediatric Cardiology, İzmir Dr.Behçet uz Children's Hospital, İzmir, Turkey (1); Department of Cardiology, Atatürk Training and Research Hospital, İzmir, Turkey (2); Department of Pediatric Cardiology, Tepecik Training and Research Hospital, İzmir, Turkey (3)

Case: A 16-year-old boy Syrian refugee re-admitted with the complaint of chest pain 8 months after the first admission. During the initial hospitalization, a giant coronary artery aneurysm was detected , but the patient and the family refused the therapeuric option and they left the hospital without permission. On this admission electrocardiogram demonstrated ST-T wave changes in precordial leads. Transthoracic echocardiography showed a mild dilatation of left heart chambers with mild systolic dysfunction.Echocardiography also demonstrated giant coronary aneurysm previously detected and huge thoracic mass compressing the heart and left lung .The patient was transferred immediately to the intensive care unit (ICU). A multi-slice CT was performed in order to evaluate coronary arteries and the mediastinal mass. Multislice CT showed a 20x15 cm mediastinal mass arising from the pericardial space with bulging into the distal lobe of left lung. Sudden cardiac arrest occurred on the first day of ICU admission, and responded to cardiopulmonary resuscitation. We discussed the patient with cardiac surgeons and radiology department. Blood leaking from coronary aneurysm was considered as the source of pericardial hematoma. Therefore, we decided to use covered stent for the exclusion of giant aneurysm. Selective right coronary angiography showed a giant saccular aneurysm at the distal part of RCA and another small saccular aneurysm which was located just before the crux(Figure1A). A 3.0 mmx27 mm equine pericardium covered stent (Aneugraft PCS, ITGI Medical, Or Akiva, Israel) was implanted to exclude both aneurysms (figure1B). However, we noted the persistence of stenosis at the proximal site (figure 3B). Thereafter, we implanted an another 3.0 mm x 27 mm equine pericardium covered stent at the proximal site so that which resulted that stents overlapped each other. The final angiogram showed an improvement of blood flow and the disappearance of both aneurysms without residuel stenosis.(Figure1C). **Conclusions:** Up to our knowledge, this is the first patient who had a successful transcatheter pericardium- covered stent implantation to exclude partially ruptured giant aneurysm with huge pericardial hematoma. With percutaneous coronary stenting, improvement of the stagnant coronary blood flow in a giant aneurysm and dilatation of the stenotic segment were successfully achieved.

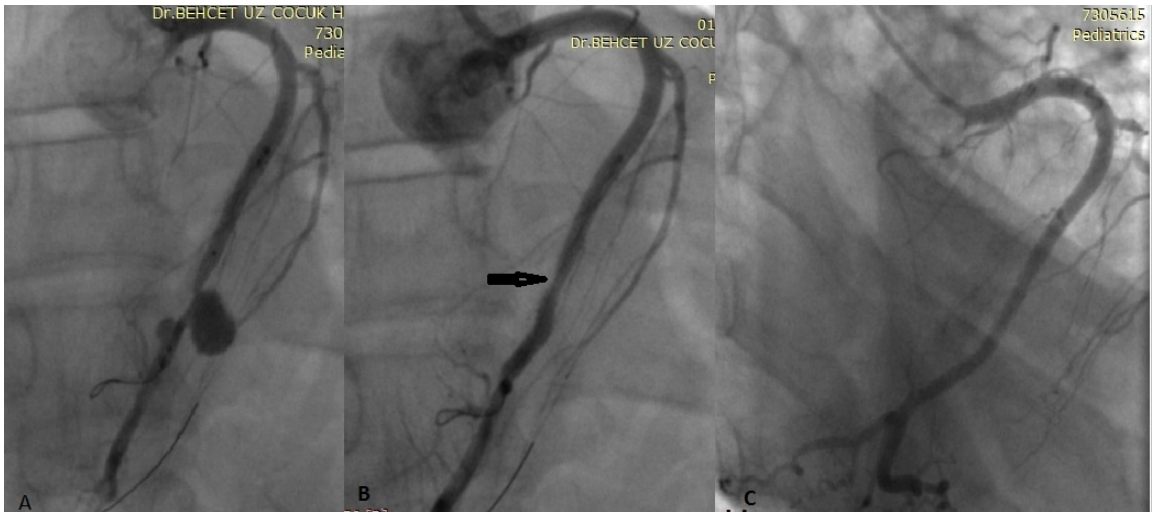

Figure 1A: Caudal coronary angiographic view showing an implantation of the pericardium-covered stent to exclude both aneurysm. **B**: Caudal coronary angiographic view immediately after the pericardium- covered stent implantation showed no aneurysm at the RCA with a localized stenosis on the proximal side of the stent (*arrow*). **C**: Coronary angiogram (RAO caudal view) immediately after the second pericardium covered stent implantation on the proximal side of the first implanted stent showed the resolution of the stenosis and the improvement of the coronary blood flow