

was consistent with sinus tachycardia and echocardiography showed left ventricular dilatation with ejection fraction 30%. Viral hepatitis markers were negative. Abdominal ultrasonography was normal. Audiometric tests showed bilateral sensorineural hearing loss. We recommended diabetic diet, metformin 1000mg/day, digoxin 0.5mg/day, perindopril 5mg/day and furosemide 40mg/day. At present the patient is normoglycemic and the clinical course of cardiomyopathy resolved progressively, with ejection fraction 40% , with the treatment.

In this report, we draw attention to a very rare syndrome, Alström syndrome, which may be complicated with dilated cardiomyopathy occurred in 60 % of patients in a 182 patient series (1). It appears in infancy as an early sign of the disease or in adult age as a late appearing complication (3). In a study severe fibrosis in multiple organs has been shown in patients with AS and myocardial fibrosis ranging from moderate to severe is found in pathological investigations (1). Even if electrocardiogram results are normal, cardiac function should be evaluated carefully by echocardiography. The chances of survival are correlated with the severity of renal and cardiac failure which are the most common causes of death in this syndrome (4). Therefore, we should keep in mind AS in differential diagnosis of a patient with infantile and early onset dilated cardiomyopathy. Early diagnosis and appropriate monitoring for complications may lead to better survival of the affected individuals.

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## References

1. Marshall JD, Bronson RT, Collin GB, Nordstrom AD, Maffei P, Paisey RB, et al. New Alstrom syndrome phenotypes based on the evaluation of 182 cases. Arch Intern Med 2005; 165: 675-83.
2. Titomanlio L, De Brasi D, Buoinconti A, Sperandeo MP, Pepe A, Andria G, et al. Alstrom syndrome: intrafamilial phenotypic variability in sibs with a novel nonsense mutation of the ALMS1 gene. Clin Genet 2004; 65: 156-7.
3. Koc E, Bayrak G, Suher M, Ensari C, Aktas D, Ensari A. Rare case of Alstrom syndrome without obesity and with short stature, diagnosed in adulthood. Nephrology (Carlton) 2006; 11: 81-4.
4. Russell-Eggitt IM, Clayton PT, Coffey R, Kriss A, Taylor DS, Taylor JF. Alstrom syndrome. Report of 22 cases and literature review. Ophthalmology 1998; 105: 1274-80.

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## The use of renal stents in percutaneous treatment of very large coronary arteries

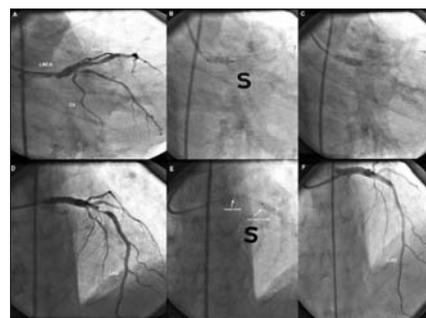
### Çok geniş çaplı koroner arter darlıklarında renal stent kullanımı

In current, absence of the large size coronary stents poses significant challenges to the operator. Both early and late outcomes after drug-eluting stents (DES) implantation are limited only by the available caliber of the DES (3.5 mm in the United States) and the mechanical limitations placed on current DES overexpansion (4.75 mm for Cypher, 4.25 mm for Taxus). This is also validated for bare metal stents (BMS) (3.5 to 5.0mm) and so, there is a significant need for a large size stent that addresses this clinical challenge. We considered that the renal "vascular" stents, which have larger size, might be used in percutaneous treatment of coronary lesions in large-size vessels.

Case 1 was a 65-year-old male with a history of severe chronic obstructive pulmonary disease who was transferred to our institution for coronary angiography, which revealed the significant ostial left main coronary artery lesion and proximal left anterior descending artery stenosis (Fig. 1A). Because he represented a poor operative risk due to severe pulmonary disease, it was decided to perform percutaneous cardiac intervention. Therefore, the left main artery was stented with 5.5 x12mm renal stent with postdilatation (Fig. 1B-C) and proximal left anterior descending artery was stented with 4.0x11mm bare-metal stent (Fig. 1D-E). Final angiographic appearance was normal with TIMI 3 flow (Fig. 1E). The patient was angina free at 3 months follow-up.

Case 2 was a 61 years old male patient with stable angina pectoris was referred to coronary angiography, which demonstrated significant middle left circumflex coronary artery stenosis (Fig. 2A-D). The other coronary arteries had mild atherosclerosis only. Percutaneous transluminal coronary angioplasty, with implantation of one 6.0x12mm renal stent, was successfully performed (Fig. 2E-F). The patient did well, without symptoms over the following three months.

Whereas larger stents induce more trauma to vessels and therefore more intimal hyperplasia, more edge dissections and more coronary ruptures; underexpanded stents increase both the risk of restenosis and the likelihood of stent thrombosis. Therefore, stent size must be carefully matched with reference vessel diameter, generally aiming for a 1.1:1 balloon to artery ratio. Since standard coronary angioplasty balloons or stents have generally not been available in diameters exceeding 5 mm, placing coronary stents may still remain challenging when vessels are extremely large. Consequently, angioplasty of larger arteries and grafts is commonly performed with undersized balloons or stents. The observational data support the use of adjunctive balloon postdilatation following stent deployment in the great majority of patients



**Figure 1. Angiographic images of percutaneous treatment of ostial LMCA lesion with renal stent and of proximal LAD stenosis with coronary bare metal stent**

LAD- left anterior descending artery, LMCA- left main coronary artery, Cx- circumflex artery



**Figure 2. Angiographic images of percutaneous cardiac intervention of Cx lesion with renal stent**

LAD- left anterior descending artery, Cx- circumflex artery

(1-2). However, acute recoil after adequate expansion may occur either when the properties of the stent are altered (e.g., after overexpansion) or when important compressive forces are developed by a hard and calcified plaque as is commonly seen in ostial lesions. In past, Palmaz "biliary" non-vascular stents with greater radial compressive strength and more variable sizing (diameter and length) features were also used for this purpose (3, 4). The increased strut thickness of the renal stents confers greater radial compressive strength in exchange for decreased stent flexibility. Despite the no availability of follow-up data, these stents may be use percutaneous treatment of coronary lesions in very large-size vessels until technologic development of large size-specific coronary stent.

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## References

1. Brodie BR. Adjunctive balloon postdilatation after stent deployment: is it still necessary with drug-eluting stents? J Interv Cardiol 2006; 19: 43-50.
2. Saia F, Lemos PA, Arampatzis CA, Hoyer A, McFadden E, Sianos G, et al. Clinical and angiographic outcomes after overdilatation of undersized sirolimus-eluting stents with largely oversized balloons: an observational study. Catheter Cardiovasc Interv 2004; 61: 455-60.
3. Chio FL, Liu MW, Al-Saif SM, Khan MA, Lawson D, Al-Mubarak N. Long-term clinical outcome after implantation of medium Palmaz (biliary) stents in very large native coronary arteries. Catheter Cardiovasc Interv 2002; 56: 35-9.
4. Khanal S, Scavetta K, Oh C, Abdel-Dayem T, Al-Zaibag M, Jutzy KR, et al. Immediate and long-term results comparing coronary versus biliary tubular-slotted stents to treat old obstructed saphenous vein grafts. Angiology 2000; 51: 647-57.

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