ending up with complete left bundle branch block (LBBB) at the last beat associated with emerging secondary ST-T wave changes. Heart rate and PR intervals do not substantially change during the episode. What is the probable underlying mechanism responsible for this type of conduction behavior?

One plausible explanation for this rare ECG phenomenon might be Wenckebach type conduction at the left bundle described for the first time by Rosenbaum et al. (1). It is a very rarely observed electrocardiographic (ECG) phenomenon similar to the concept observed in second degree Mobitz type 1 atrioventricular conduction block. Although the underlying mechanism is poorly elucidated, the prognosis seems to be benign. Three prerequisites are necessary for the occurrence of either direct or incompletely concealed Wenckebach periods in the bundle branches: 1) The opening beat should be normally conducted (in the affected bundle branch); 2) the second beat should be conducted with a delay of no more than 0.04 to 0.06 sec; 3) the damaged bundle branch should not be activated retrogradely in the closure beat (1). Since all of the three criteria are met, left bundle Wenckebach seems to be the most probably underlying mechanism for this ECG phenomenon. However, although Rosenbaum et al. (1) proposed the concept of Wenckebach conduction at bundle branches, they unfortunately did not take into account another possible mechanism, namely Mahaim or atriofascicular accessory pathway (AFAP) conduction. To our opinion, this rare possibility should also be considered in the differential diagnosis because after each sinus beat QRS length gets wider in the form of incomplete LBBB and ends up with complete LBBB suggestive of an anterograde decrementally conducting accessory pathway despite stable sinus rate and PR interval. Anterograde decrementally conducting accessory pathways are not uncommon and approximately 6% of all patients presenting with supraventricular tachycardia with a LBBB morphology have a AFAP. Any perturbation such as changing autonomic tone or pharmacological maneuver that prolong conduction to the ventricles over the normal conduction system to a greater degree than in the slowly conducting AFAP will increase the degree of preexcitation. Since all these AFAP exhibit decremental conduction, the PR interval will increase in response to atrial pacing. As preexcitation occurs, the AH interval lengthens and the HV shortens with subsequent gradual change to an LBBB configuration (2). In our case, as it is nicely shown in Fig. 1, surface ECG reveals that sinus rate is stable and there is no progressive PR or atrioventricular interval prolongation. Since in cases with AFAP the AH interval during sinus rhythm shows a greater degree of prolongation than the atrioventricular interval, the PR interval may remain unchanged. Although the patient refused to undergo electrophysiologic study to confirm the underlying mechanism, we concluded from the ECG in Figure 1 that it is most likely due to an AFAP because Wenckebach at the left bundle in a symptomatic young lady without any apparent structural heart disease must be very unlikely. Despite the absence of electrophysiologic study, we had the opportunity to discuss this rare ECG phenomenon by revisiting Rosenbaum's thoughtful remarks in his elegant article and would like to draw attention of the reader to an interesting diagnostic dilemma.

Figure 1. ECG tracing recorded by 24-hour Holter showing gradual QRS widening in each successive beat with complete LBBB at the last beat without substantial change in heart rate and PR interval

ECG - electrocardiogram, LBBB - left bundle branch block

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Acute left main coronary artery occlusion following TAVI and emergency solution

TAVI sonrası akut sol ana koroner arter tıkanması ve acil çözüm

Transcatheter aortic valve implantation (TAVI) is an alternative therapy in patients with severe aortic stenosis(AS) and high surgical risk (1). TAVI have high procedural mortality rate such as valve embolization, stroke, perforation and the obstruction of coronary ostia (2). We present a TAVI case complicated acute left main coronary artery (LMCA) obstruction after TAVI. An 85 years old female was admitted with hypertension, atrial fibrillation, COPD and known severe AS that was refused for surgery in the past. Echocardiography demonstrated a severe calcified AS with valve area 0.3 cm^2, mean gradient 45 mmHg and left ventricular ejection fraction 65%. Coronary angiography was almost normal. The patient was underwent transfemoral TAVI procedure with calculated EuroSCORE 18%.

Balloon valvuloplasty was successfully completed and a 23 mm Edwards SAPIEN aortic valve (Edwards Lifesciences, Irvine, CA, USA) was implanted (Fig.1a,b and Video 1. See corresponding video/movie images at www.anakarder.com). Control aortography demonstrated successfully implanted valve and totally occluded LMCA (Fig. 1c and Video 2. See corresponding video/movie images at www.anakarder.com). The patient hemodynamically deteriorated and ST elevation showed on monitor followed by ventricular fibrillation. Cardiopulmonary resuscitation was performed and 6 Fr left Judkins 4.0 guiding catheter was advanced by using contra-lateral femoral artery to cannulate LMCA. The guiding catheter was placed in LMCA ostia just above the valve and 0.014" floppy coronary wire was placed to the distal left anterior

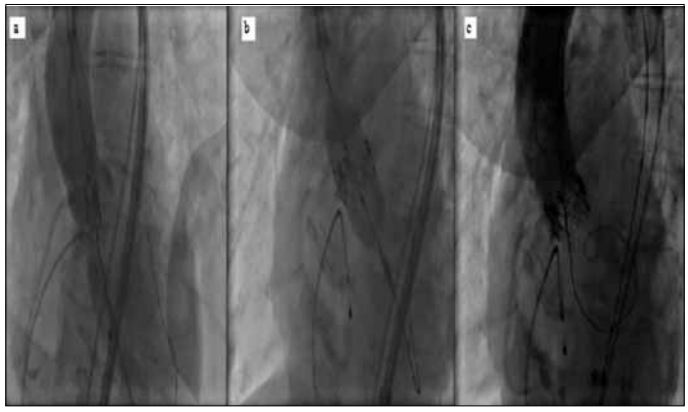

Figure 1. This figure shows positioning of bioprosthetic aortic valve in the mid-line of native aortic valve (a), opening phase of the valve (b) and missing of left main coronary artery on control aortography (c)

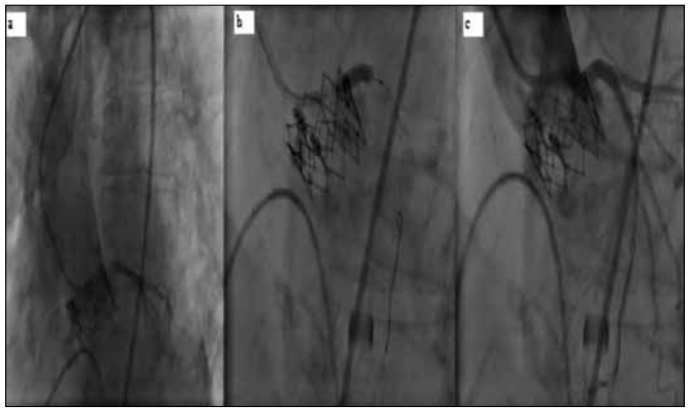

Figure 2. This figure shows cannulation of left main coronary artery (a), stent placement (b) and final patency of left main coronary system (c)

descending artery. After the balloon predilatation, the patient became hemodynamically stable and 4.0x15mm Zotarolimus eluting stent was implanted in the LMCA (Fig. 2 and Video 3, 4). Predischarge echocardiography showed normal left ventricular contractility and ejection fraction and normal functioning prosthetic valve. The patient was discharged at fifth day after procedure without cardiovascular and cerebral complication.

Although CoreValve ReValving system has been hopefully expected to protect coronary ostium due to its large stent's gap and shape, this dreadful complication may be seen with this system (3). In addition, trans-apical aortic valve replacement may cause LMCA occlusion as well as transfemoral system (4). All types of acute LMCA occlusion following TAVI must be immediately treated with stent implantation, and sometimes it may require Tandem Heart support (5).

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Emergency double-valve repair during acute aortic dissection type A operation

A tipi akut aort disseksiyonu onarımı sırasında acil çift-kapak tamiri

Acute aortic dissection type A (AADTA) is a life-threatening disease. Complications such as aortic rupture, cardiac tamponade and acute aortic regurgitation require immediate surgical intervention. Replacement of the aortic valve (AV), root and ascending aorta with a composite graft carrying a mechanical valvular prosthesis is one of the most used treatment option especially if the aortic root is severely impaired, but it is accompanied by disadvantages of mechanical valve prostheses, such as thromboembolic events and hemorrhage due to lifetime anticoagulation. There are several AV sparing operations for replacement of the ascending aorta to overcome the shortcomings of mechanical prosthesis. The Cabrol type of commissure sutures with or without resuspension of the valve is one of them, which are perfectly suited for patients with AADTA (1).

The advantages of mitral valve (MV) repair over prosthetic valve replacement such as better preservation of left ventricular function and lower incidence of valve-related events are also well-documented. Nowadays, the procedure is the gold standard especially for degenerated MI. In contrast to MV repair, AV repair still poses significant technical challenges. Svensson et al. (1) reported 388 aortic root preserving procedures that 140 (36.1%) of them were after AADTA. They performed 197 leaflet repair procedures which 158 (80.7%) of them were Cabrol/Trusler type of commissure sutures with excellent early results. Kallenbach et al. (2) reported results of 22 emergency valve sparing aortic root reconstruction by reimplantation technique with %14 perioperative deaths and excellent results during follow-up. 36 patients with valve-sparing aortic root remodeling/reimplantation for AADTA was reported by Erasmi et al. (3) with excellent midterm aortic valve function. There was no concomitant MV repair in any above reports.

In contrast, mitral insufficiency is present in 68%-91% of patients with Marfan's syndrome who are more prone to aortic dissection. Forteza et al. (4) reported 37 aortic valve-sparing procedures in Marfan's syndrome with good short and midterm results where 6 (16%) concomitant mitral valve repairs were done. In their series, none of them were under the diagnosis of AADTA. Another report by Kallenbach et al. (5)