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## Author's Reply

Dear Editor,

Mitral valve repair has become a standard surgical treatment for mitral regurgitation in chronic degenerative disease and selected cases of mixed mitral pathologies. Favorable postoperative outcome and patient's benefit after surgery allowed both cardiac surgeons and cardiac specialists to recommend mitral repair, instead of making a mechanical valve replacement. Repair procedure is associated with a lower rate of reoperation, thromboembolism and valve infection than mitral valve replacement. During the last two decades, the number of mitral valve repair procedures has increased across the world. However, we are not aware of the actual number of repair procedures in our country; it is considered less than replacement procedures as well as expected numbers for chronic MR. This situation can be related to prolonged follow-up time of patients under medical treatment, instead of referring to a specialist for repair before myocardial function deteriorates. Another concern can be the presence of inadequate number of surgeons experienced in valve repair. Nevertheless, cardiologists and surgeons in our country have observed that the results of mitral repair procedures are much more successful and durable than their expectations. In our series of 100 consecutive patients undergoing surgical mitral repair, we aimed to present our preliminary results of mitral valve repair, and to focus on the benefit of repair procedures (1).

I would like to thank the author (2) of the letter for their suggestions on our series about mitral valve repair. We generally prefer to make a repair procedure in different types of mitral valve pathologies causing regurgitation, instead of performing a replacement. We agree that minimally invasive approach in mitral repair may be preferred in the surgical treatment of mitral valve repair. Our experience showed that mitral repair is a feasible and safe procedure in experienced hands with an excellent surgical outcome. We believe that symptomatic as well as asymptomatic patients with severe mitral regurgitation may have an improved prognosis if they are operated before cardiac dysfunction develops.

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## *E. coli* outbreak and myocarditis: a story in cardiology

### *E. coli* salgını ve miyokardit: Bir kardiyoloji öyküsü

Dear Editor,

The present problem of *E. coli* outbreak in many countries in Europe draws attention of physicians and medical scientist around the world on this emerging infection. Routinely, the intestinal symptoms as severe diarrhea is the main presentation of this infection, however, there are also other presentations. The cardiac presentation might be a forgotten presentation of *E. coli*. The myocarditis is reported in severe fatal case of *E. coli* O157:H7 infection (1). The inflammatory cell infiltration in the myocardium is the common pathohistological finding (1). This condition can be misdiagnosed as myocardial infarction (2). The cause of carditis is not conclusive but might be a result endotoxin injury (3). In management of case with *E. coli* infection, the assessment on cardiac status is required. Nevertheless, it should not be forgotten that the cardiac presentation can be the uncommon presentation of the new emerging *E. coli* infection in new settings.

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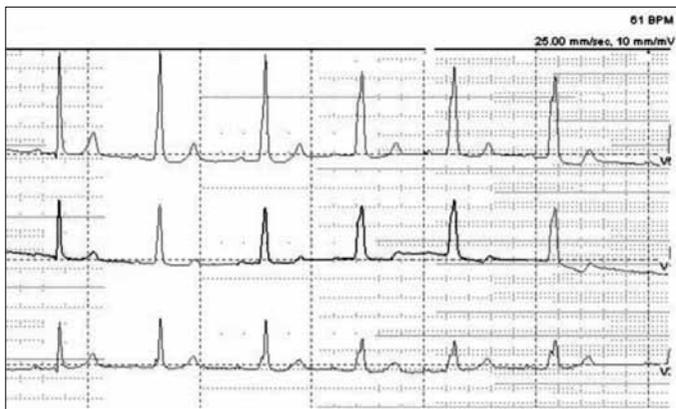
## Electrocardiographic diagnostic dilemma: gradual QRS widening recorded by rhythm Holter monitoring

### *Elektrokardiyografik tanısal ikilem: Ritim Holter kaydında QRS'lerin giderek genişlemesi*

Figure 1 demonstrates one of the frequent episodes of gradual QRS widening during sinus rhythm recorded by Holter monitoring of a young lady, who has been complaining of palpitation for a few years. She has no structural heart disease and echocardiographic findings are normal. In Figure 1, the first beat has normal QRS duration, whereas the subsequent group beats demonstrate gradual widening of QRS complexes

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



**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

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.

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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<sup>2</sup>, 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](http://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](http://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