

## Plagiarism and duplication / Two situations, which are difficult to differentiate from each other: plagiarism and duplication

*Aşırma ve duplikasyon / Birbirinden ayrılması zor iki durum: Aşırma ve Duplikasyon*

Dear Editors,

The recent publication on plagiarism and duplication is really useful and interesting. Kırış described for the difficulty in differentiation between the two scenarios (1). Indeed, any of the two scenarios are not acceptable in scientific publication. However, the important concept in judging of these problems should be based on the intention of the accused plagiarist. Sometimes, the problems might be due to some acceptable causes such as the accidental errors by the publisher. Not only the journal but also the reader can help identify and control of present widespread of plagiarism and duplication.

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### Author's Reply

Dear Editor,

I would like to thank authors of the letter for their suggestions on my short review about plagiarism and duplication. We generally prefer to present our ethic cases and try to give short information and accepted ethic rules related with these cases. We are really glad to hear that Publication Ethics corner of the Anatolian Journal Cardiology is useful.

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## Maternal cardiovascular hemodynamics in a patient with mitral prosthetic heart valve evaluated with impedance cardiography and echocardiography

*Mitral protez kalp kapağı olan bir hastada maternal kardiyovasküler hemodinaminin impedans kardiyografi ve ekokardiyografi ile değerlendirilmesi*

Many prosthetic valves are yearly implanted in young women with rheumatic or congenital heart disease. Increased hemodynamic burden due to physiological circulatory changes, increased incidence of thromboembolic events, untoward effects caused by cardiovascular drugs and anticoagulation are major risks associated with pregnancy in a woman with mechanical prosthetic valve (1).

Although hemodynamic changes during pregnancy are studied in detail (2), we do not know the hemodynamic changes in pregnancy complicated with prosthetic heart valve. Therefore, we investigated a 31-years-old woman with mitral mechanical valve prosthesis who demanded to get pregnant. The echocardiogram performed at hospital admission revealed functional prosthetic mechanical valve at mitral position with a diastolic gradient of 9/6 mmHg. We discussed the anticoagulation regimen with the patient and started enoxaparin sodium as soon as pregnancy was achieved. Echocardiography and impedance cardiography were performed during the first, second and third trimester. Stroke volume (SV), stroke index (SI), cardiac index (CI), cardiac output (CO), index of contractility (IC) and total peripheral resistance (TPR) were measured by impedance cardiography (3). While heart rate and TPR were increased in 2<sup>nd</sup> and 3<sup>rd</sup> trimester, there was a decrease in SV, SI, CO, CI and IC (Table 1). With echocardiographic evaluation, we observed a slight increase in mitral diastolic gradients, peak systolic pulmonary arterial pressure and left atrial diameter (Table 1). While NYHA class of patient was I in the first trimester, functional class had continued to worsen until the 3<sup>rd</sup> trimester (class II-III) and low dose diuretic therapy was added to medical therapy. Possibility of thrombotic

**Table 1. Echocardiographic parameters and hemodynamic parameters by impedance cardiography**

Variables	1 <sup>st</sup> trimester	2 <sup>nd</sup> trimester	3 <sup>rd</sup> trimester
Peak mitral gradient, mmHg	10	16	16
Peak systolic PAP, mmHg	25	30	33
Left atrium, cm	4.4	4.6	5.0
EF, %	70	70	68
HR, beats/min	62	73	75
CI, L/min/m <sup>2</sup>	3.58	3.00	2.46
CO, L/min	5.75	4.93	4.35
SV, ml/beat	92.19	67.36	57.95
SI, ml/beat/m <sup>2</sup>	57.26	41.07	32.74
TPR, dynes.sec.cm <sup>-5</sup>	1159.03	1305.90	1538.09
IC	0.072	0.072	0.058

CI - cardiac index, CO - cardiac output, EF - ejection fraction, HR - heart rate, IC - an index of myocardial contractility, MAP - mean arterial pressure, PAP - pulmonary arterial pressure, SI - stroke index, SV - stroke volume, TPR - total peripheral resistance

complication was ruled out with transesophageal echocardiography. Electrocardiography was normal. A live healthy baby was delivered by caesarean section at 39 weeks of gestation without any complications during the labor and postpartum period.

During pregnancy, echocardiographic cardiac chamber dimensions increase by 2 to 5 mm (4). Cardiac output increase 50% mainly due to an increase in stroke volume. Systemic vascular resistance decreases due to the low resistance in the uterine vessels and elevated levels of vasodilators (2). However, we observed a decrease in cardiac output and an increase in TPR in our patient. Mechanical mitral valve replacement behaves like mild mitral stenosis. Therefore, with increased volume load and tachycardia together may cause the patients to deteriorate and advance from one NYHA class to another. The increased heart rate of pregnancy may limit the time available for left ventricular filling, resulting in increased left atrial and pulmonary pressures and an increased likelihood of pulmonary edema. However, we could not conclude accurate results with only one patient. Therefore, we planned to make a study about this subject with more patients.

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## Two-year results of primary coronary intervention performed in a medium-scale primary percutaneous coronary intervention center by two cardiologists who are not formally trained in interventional cardiology

*Orta ölçekli bir primer perkütan girişim merkezinde resmi girişimsel kardiyoloji eğitimi almamış iki kardiyolog tarafından yapılan primer PKG'lerin iki yıllık sonuçları*

Primary percutaneous coronary intervention (PCI) is the preferred option when it can be performed in less than 90 min after the first medical contact, especially in patients with high-risk features such as cardiogenic shock or hemodynamically significant fatal ventricular arrhythmia in AMI (1). Current recommendations indicate that elective percutaneous transluminal coronary angioplasty (PTCA) be performed by operators with an annual volume of at least 75 procedures in institutions with annual volumes over 400. Furthermore, primary PTCA for AMI should be performed by operators who perform more than 75 elective PTCA procedures per year and at least 11 PTCA procedures for AMI in a year.

The purpose of the present study was to compare angiographic results and in-hospital outcomes in AMI patients undergoing primary PCI at moderate volume hospital by 2 operators without formal interventional cardiology training. From January 2007 to December 2008, 140 consecutive patients (110 male and 30 female) with a diagnosis of AMI, who were admitted to TDV 29 Mayıs İstanbul Hospital for primary PCI within 12 hours of chest pain were enrolled in the present study. We retrospectively analyzed clinical background, coronary risk factors, angiographic findings, acute results of primary PCI, and in-hospital prognosis in patients treated at our hospital. Primary PCI's were performed by two operators without formal interventional cardiology training but with minimum experience suggested in guidelines. Both cardiologists received 5 years of basic cardiology training and acquired angioplasty skills through "on-the-job" experience under experienced supervisors. As of 2011, there is still no formal interventional cardiology training in our country and many physicians are trained through "on-the-job" experience. Data were analyzed using SPSS for Windows release 10 software (Chicago, IL, USA).

The study population consisted of 110 male and 30 female patients with a diagnosis of AMI. Average follow-up was 12.86 +/- 6.43 months. In-hospital mortality was 4.3% and 1-year mortality was 7.1%. Other clinical parameters and angiographic results are given in Table 1.

In some parts of the world, there is still no formal interventional cardiology training programs and coronary angioplasty technique is disseminated informally among physicians who are highly experienced at diagnostic cardiac catheterization. During this period, physicians acquire angioplasty skills through "on-the-job" experience, and no official standards exist for either training requirements or for demonstration of competence. Whether low volume hospitals/operators or operators without formal interventional cardiology training and certification should continue to perform primary PCI or patients receive early thrombolytic therapy is an important issue (2-4). In our small study group average hospital stay (4.14±2.62 days), in-hospital mortality (4.3%), 1 year mortality (7.1%), rate of in-hospital reinfarction (2.9%) and in-hospital cerebrovascular accident (0.7%) were all within acceptable limits. We ascribe these results to obsessive attention of inexperienced operators to optimal anticoagulant, antiaggregant use, detailed no-reflow treatment plan, high quality stent/balloon use, good cooperation with angiography and coronary care personnel. Regular meeting among two cardiologists and cardiovascular surgeons provided a quality check and stimulus for improving practice.

Our data showing low mortality, complication and hospital stay supports that there is not a significant relationship between operator volume over the threshold indicated by the guidelines and primary PCI early outcomes and complications. A minimum of 75 coronary interventions per operator per year may be enough in the future to obtain formal certification where there is no formal interventional cardiology training programs and larger studies are needed.