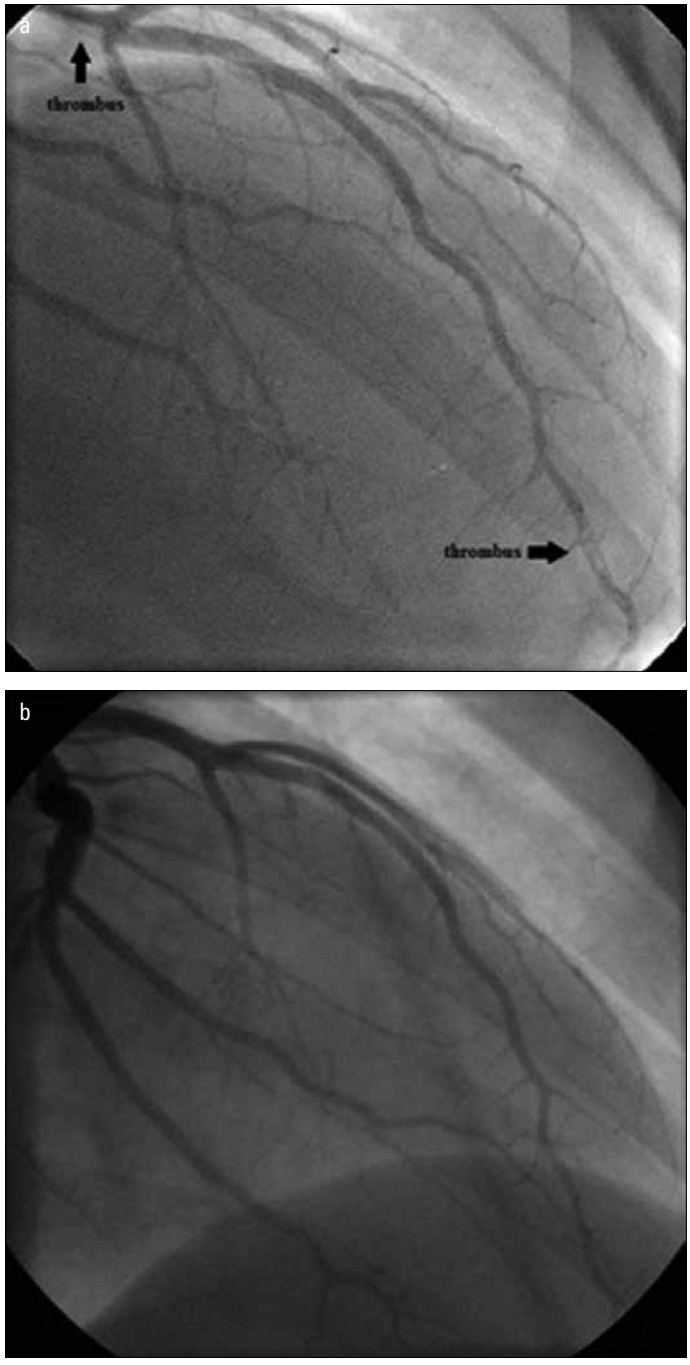

Figure 2. a) Thrombi are seen in the mid (extending to first septal artery) and distal left anterior descending artery, b) Thrombi are seen disappeared on control angiography

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Video 1. Coronary angiography showing a thrombus in the distal left anterior descending artery (antero-posterior caudal view)
Video 2. Coronary angiography showing thrombi in the mid (extending to first septal artery) and distal left anterior descending artery (right anterior oblique cranial view)
Video 3. Thrombi are seen in the mid (extending to first septal artery) and distal left anterior descending artery (lateral view)

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Available Online Date/Çevrimiçi Yayın Tarihi: 21.02.2013

doi:10.5152/akd.2013.080

Variant high origin of both right and left coronary arteries from the ascending aortic wall

Çıkan aort duvarından yüksek kökenli hem sağ ve sol koroner arter

Introduction

We report here the interesting case of anomalous origin of both coronary arteries. The prevalence of high takeoff (more than 1 cm above the sinotubular junction) is reported as 6% (1, 2). Presence of coronary artery anomalies may create challenges during coronary

angiography and other procedures during which attention to be paid on the position of the coronary orifice. In adults, the clinical interest in coronary anomalies relates to their occasional association with sudden death, myocardial ischemia, congestive heart failure, or endocarditis.

Case Report

During routine student's dissection, this anomaly was observed in a donated male cadaver aged, 60 years. He had never been medically treated and no traumatic findings.

On dissection, both lungs and pericardium appeared to be normal. The right coronary ostia was circular shaped (Fig. 1, 2) with a diameter of 4 mm located 18 mm above the rim of the sinotubular junction originating at the right anterolateral aspect of the ascending aorta with an angle of 45 degree. Its further course was normal.

The left coronary ostia was pocket shaped (Fig. 1, 2) with a diameter of 6 mm located 17 mm above the rim of the sinotubular junction originating at the left anterolateral aspect of the ascending aorta with an angle of 80 degree. After origin, it was divided into anterior interventricular and left circumflex branch at a distance of 20 mm and continued in its normal course.

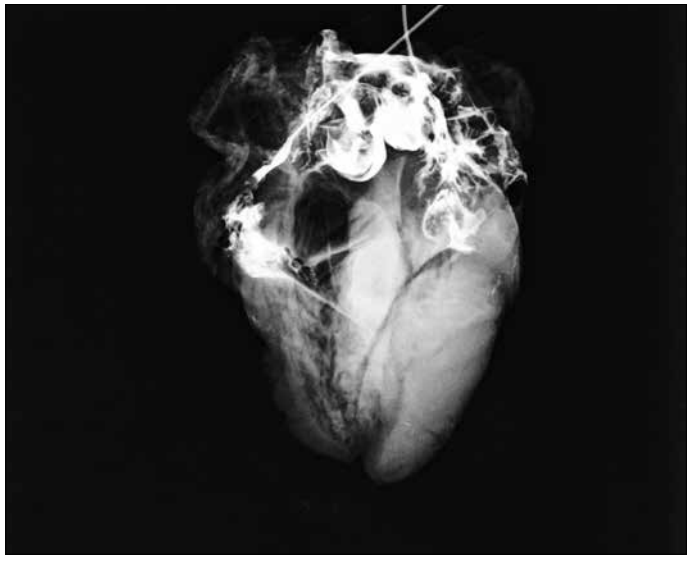

Figure 1. Radiography taken to show coronary course in the specimen

Figure 2. Pathology view of coronary arteries and its ostia

Discussion

Ectopic high origin (high takeoff of the coronary ostia) of coronary arteries has been defined as having ostia originating more than 5 mm above the supra valvular ridge or 10 mm above the sino tubular junction, which is seen in our case. In a study by Eckart et al. (3), coronary artery abnormalities were the most common cardiac abnormality (61%). Some authors have mentioned that in acute high ectopic origins of the coronary artery, increase in blood flow during exercise made the artery pull the upper border of the aortic wall, and push the lower border upward, resulting in transient flow impairment of the anomalous ectopic coronary artery (4, 5). High take-off of the coronary arteries may cause difficulty in cannulating the vessels during coronary arteriography. Sudden death also has been reported which is mainly due to impairment in the diastolic coronary artery flow. Knight et al. (6) has found the mean ostial positions in relation to the aortic annulus were 17 mm and 15.3 mm for the right and left coronary ostia respectively (whereas in our study, it is 18 mm- right and 17 mm- left).

Conclusion

This person survived till 60 years and had a natural death even though having high take off origin of both side of coronary arteries. This concludes that he was leading a non-stressful life. High origin of the coronary artery is a potential source of sudden death that should be considered when no other significant autopsy findings are present. We believe that this case will be useful for cardiologist in detecting this infrequent anomaly and also its implication in forensic practice.

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Available Online Date/Çevrimiçi Yayın Tarihi: 21.02.2013

doi:10.5152/akd.2013.081