

ing video/movie images at www.anakarder.com), biatrial dilatation (Fig. 1D, Video 2. See corresponding video/movie images at www.anakarder.com), moderate tricuspid regurgitation, systolic pulmonary artery pressure of 50 mmHg, restrictive type diastolic dysfunction (mitral E/A>2, E/E'=17.5). Tissue Doppler imaging revealed septal E'<8 cm/sec. Plasma brain natriuretic peptide level was 2164 pg/ml (normal: 0-100 pg/ml). She was hospitalized and intravenous diuretic infusion was initiated. Cardiac magnetic resonance imaging also confirmed the diagnosis of restrictive cardiomyopathy (RCMP) and excluded hypertrophic cardiomyopathy (Fig. 1E). Endomyocardial biopsy was nondistinctive and showed non-specific degenerative changes. Concomitant right and left heart catheterization revealed mean pulmonary capillary wedge pressure of 24 mmHg, pulmonary artery systolic/diastolic/mean pressures of 45/25/35 mmHg, right ventricle systolic/end-diastolic pressures of 48/17 mmHg and LV systolic / end-diastolic pressures of 110/25 mmHg. The hemodynamic study also confirmed the diagnosis of RCMP. Further investigations ruled out secondary causes of RCMP and hence a diagnosis of primary RCMP (probably familial) was made. Her symptoms relieved and functional capacity improved during follow-up. Implantable cardioverter defibrillator was implanted because of the family history of sudden cardiac death. She has become a candidate for cardiac transplantation. She was discharged from hospital uneventfully.

Himalayan P-wave has been shown in many congenital and acquired disorders previously (1-4). The discussed case report underlines the importance of simple tests like electrocardiogram which may direct us to correct diagnostic approaches for differentiation of several disorders. Our patient was misdiagnosed as hypertrophic cardiomyopathy previously, which was corrected as RCMP after multiple imaging methods. Therefore, the diagnosis of RCMP requires combination of clinical and diagnostic findings together.

Video 1. Transthoracic echocardiography at parasternal long-axis view showing decreased ejection fraction and increased septal thickness

Video 2. Transthoracic echocardiography at apical 4-chamber view showing biatrial dilatation

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References

1. Reddy SC, Zuberbuhler JR. Images in cardiovascular medicine. Himalayan P-waves in a patient with tricuspid atresia. *Circulation* 2003; 107: 498. [CrossRef]
2. Vijayakrishnan R, Spodick DH. Himalayan P-waves in the setting of severe hypoxemia and emphysema. *Can J Cardiol* 2010; 26: 136. [CrossRef]
3. Davutoğlu V, Kılınc M, Dinçkal MH. Himalayan P waves in a patient with combined tricuspid and pulmonic stenosis. *Heart* 2003; 89: 1216. [CrossRef]
4. Gupta MD, Girish MP, Tyagi S. Alpine "p" waves in a case of restrictive cardiomyopathy. *Int J Cardiol* 2011; Jan 14 (Epub ahead of print). [CrossRef]

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Sex proportion of offspring in mothers with cardiac disease

Kalp hastalığı olan annelerin çocuklarında cinsiyet dağılımı

Sex ratio adjustment has become a hot and interesting topic in ecology and production biology, as documentations of sex ratio changes are numerous, and include examples in human and animal species. An increasing number of researches support the idea that exposure to stressful conditions can influence the sexes of offspring produced by humans; a majority of which document significantly fewer males after exposure to adverse conditions such as severe life events, economic disruption (1, 2); but natural disasters such as cardiovascular disease was not assessed.

According to this background, we reviewed 200 pregnant women with cardiac disease and mean age 29.4±4.28 years. The incidence of various cardiac disease in pregnant women were as follow: valvular heart disease 138 cases (64%), dilated cardiomyopathy 19%, hypertrophic cardiomyopathy 2 patients (1%), not corrected or significant residual congenital heart disease in 28 women (14%) and aneurysm of aorta were found in 4 cases (2%). In addition, our results showed that 55 women (27.5%) had ejection fraction<25% and 72 cases (36%) had pulmonary hypertension (pulmonary artery pressure ≥40 mmHg). These patients delivered 216 offspring; 164/216 (75.9%) of them were female [the calculated sex ratio (male/female) was 52/164 (0.32)] and 16 neonates (8%) were twins.

Based on previous studies the relation between stress in early pregnancy and offspring gender was studied; for example Navara et al. (1) reported that exposure to moderate and severe stress (30-item version of the General Health Questionnaire) in early pregnancy is associated with a lower male to female ratio (sex ratio=0.85).

In addition, women in job types that were categorized as "high stress" were more likely to give birth to daughters, whereas women in job types that were categorized as "low stress" had equal sex ratios or a slight male bias in offspring (2).

However, the mechanisms by which stress-related biases in the offspring sex ratio may occur remain elusive, and the involvement of glucocorticoids indicating a true influence of stress itself remains unstudied, so parental hormone levels around the time of conception partially control the sexes of the resulting offspring (2). Also interestingly, Hama et al. (3) reported that radiation exposure among male radiologists was associated with a significantly higher proportion of female offspring: 51.5% vs. 48.5% in the control group, with a relative risk of 1.13 [95% confidence interval (CI), 1.00-1.27]. The same study found that high levels of radiation exposure, defined as one or more incidents of annual radiation exposure >10 mSv, among male radiologists were associated with an even higher proportion of female offspring (66%; p=0.002; relative risk, 2.01) (3). Zadeh et al. (4) have demonstrated a non-significant increase in the female proportion (53%, p=0.13) in the sex ratio among male orthopedic surgeons exposed to ionizing radiation.

Milham et al. (5) also confirmed a reduced sex ratio among the 139 offspring of carbon setters in Olympia, Washington, who were exposed to electromagnetic radiation; there was a 62% female preponderance (p = 0.0026). Limited data have also shown reduced sex ratios in female physiotherapists exposed to electromagnetic radiation. We believe this is the first report of the relation between offspring gender and mother's

cardiac disease. This finding should thus be considered hypothesis-generating and future studies that examine this idea may be warranted.

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References

1. Navara KJ. Programming of offspring sex ratios by maternal stress in humans: assessment of physiological mechanisms using a comparative approach. *J Comp Physiol B* 2010;180:785-96. [CrossRef]
2. James WH. Behavioural and biological determinants of human sex ratio at birth. *J Biosoc Sci* 2010;42:587-99. [CrossRef]
3. Hama Y, Uematsu M, Sakurai Y, Kusano S. Sex ratio in the offspring of male radiologists. *Acad Radiol* 2001;8:421-4. [CrossRef]
4. Zadeh HG, Briggs TW. Ionizing radiation: are orthopedic surgeons' offspring at risk? *Ann R Coll Surg Engl* 1997;79:214-20.
5. Milham S Jr. Unusual sex ratio of births to carbon setter fathers. *Am J Ind Med* 1993;23:829-31. [CrossRef]

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Comparison of blood lipid levels of people of Armenian and non-Armenian origin living in Istanbul, Turkey

İstanbul'da yaşayan Ermeni kökenli olan ve Ermeni kökenli olmayan toplumların lipid profili yönünden karşılaştırılması

In recent years, blood lipid profiles or risk factors for atherosclerotic cardiovascular diseases (ACD) of several minority groups living in a country were compared with those of the main ethnic group of that country (1). One of two major studies addressing blood lipid levels and other risk factors in the Turkish population is Turkish Heart Study and the other one is Turkish Adult Risk Factor Study (2, 3). However, studies are scarce examining lipid levels of Turkish citizens of different ethnic origin. One of such ethnic minority groups is Armenians and about 100.000 Armenians live in Turkey and majority of them live in Istanbul. Literature search in Medline/Pubmed and Embase databases using key words of "Armenia, Armenians, lipid profile, Armenian population, cardiovascular risk factors" revealed a limited number of studies published in English language (4).

The aim of this study is to compare lipid levels of Turkish citizens of Armenian origin people living in Istanbul and Turkish citizens of non-Armenian origin living in the same region. Three hundred and four (174

female, 130 male) Turkish citizens of Armenian origin who were living in Istanbul (Group 1) and 157 (82 female, 75 male) Turkish citizens of non-Armenian origin who were living in same region (Group 2) were included in the current study. Those who were less than 20 years old and more than 79 years old, and those with family history of marriage between different ethnic groups were excluded from the study. We did not perform genetic analysis in the Armenian minority for their ethnic origin. More importantly, the results obtained from the present study are not new and it does not change the lipid management policy in that ethnic group. However, the finding that, in spite of a higher prevalence of hypercholesterolemia (HC) (45% vs. 38%, p=0.042), hypertension (32% vs. 18%, p=0.018), and obesity (34% vs. 22%, p=0.024), the prevalence of cardiovascular and cerebrovascular events in Armenian Turkish people is entirely similar to non-Armenian others is quite impressive. By the way, with a higher prevalence of HC, hypertension, and obesity according to results, Armenian individuals should also have a higher prevalence of the metabolic syndrome (38% vs. 26%, p=0.034). Cardiovascular and cerebrovascular events are not significantly different between the two groups, and the overall prevalence of arterial events is quite low that considering the high risk profile of this population. Probably, this result was secondary to the young mean age (56±17 year for Armenians vs. 57±16 year for non-Armenians; p=0.245) of the enrolled subjects and was limited our study.

In conclusion, we consider that this difference in lipid profile is due to different eating habits and genetic properties of population of Armenian and non-Armenian origin. In fact, it was learned that eating habits were more variable in the population of non-Armenian origin although foods contain fat and red meat and foods fried in the oil prevailed in population of Armenian origin.

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References

1. Lopez AD, Mathers CD, Ezzati M, Jamison DT, Murray CJ. Global and regional burden of disease and risk factors, 2001: systematic analysis of population health data. *Lancet* 2006; 367: 1747- 57. [CrossRef]
2. Mahley RW, Palaoğlu KE, Atak Z, Dawson-Pepin J, Langlois AM, Cheung V, et al. Turkish Heart Study: lipids, lipoproteins, and apolipoproteins. *J Lipid Res* 1995; 36: 839-59.
3. Onat A. Lipids, lipoproteins and apolipoproteins among Turks, and impact on coronary heart disease. *Anadolu Kardiyol Derg* 2004; 4: 236-45.
4. Arevian M, Adra M, Kubeissi L. Risk factors for coronary artery disease (CAD) in Lebanese-Armenian Women. *Health Care Women Int* 2004; 25: 933-49. [CrossRef]

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