

Quran and Heart: Arrhythmia From the Viewpoint of Avicenna

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We sent down of the Quran that which is a healing and a mercy to believers, but to the harm doers it does not increase them, except in loss" (Surah Al-Isra, 82).

According to the interpretation of Khorrami: "How can't "the right" be powerful and victorious? When we sent down verses of Quran which heal (the hearts from the illnesses such as ignorance and misdirection, cleaning the inside from the dirt of passion, avarice, greed and depravity) and is the mercy for believers (since they include the belief, and God blessed guidelines), but it does not give anything to the oppressors (infidel, because of fighting with the light of God, and having rebellious spirit), except loss".

God put an organ in the body which is its safeguard, and it is the heart (Amir al-mumenin Ali ibn Abitaleb, Nahjul-balagha, Sermon82).

Tissue of the heart is muscular, and from the Iranian Islamic viewpoint heart is one of the basic organs of the body. Vapors and the animal spirit (arterial blood) which come from other organs give life, by the permission of God. Any damage to heart, such as arrhythmia, hurts other organs (Canon by Avicenna).

Dear Editor,

Arrhythmia is an abnormality of rate, regularity or site of origin of the cardiac impulse or a disturbance in conduction that causes an abnormal sequence of activation. Arrhythmias may arise because of alterations in impulse generation, impulse conduction or both (1). Arrhythmia can cause serious disorders in heart (2). A normal heart rate is 50 to 100 beats per minute. Arrhythmias can occur with a regular heart rate, or with heart rates that are slow or rapid. In the United States, more than 850,000 people are hospitalized for an arrhythmia each year (3). When symptoms of an arrhythmia occur, they may include: Palpitations (a feeling of skipped heart beats, fluttering or "flip-flops", or feeling that heart is "running away"). Pounding in your chest, Dizziness or feeling light-headed, Fainting, Shortness of breath, Chest discomfort, Weakness or fatigue (feeling very tired) (4).

Palpitation can be one of the symptoms of arrhyth-

mia as atrioventricular nodal reentry tachycardia (5), sinus tachycardia, premature contraction of atrium or ventricle, and dissociation of atrial and ventricular contractions. Palpitation can be felt as flip-flopping in the chest or can be felt as rapid fluttering and as pounding in the neck (6). In Traditional Iranian Medicine, Heart was known and its diseases were explained but in another view. Avicenna (Ibn-e-Sina) has been known as an ancient scientist who has had more than 200 books not only in medicine, but also in philosophy and other sciences. He was a famous Iranian physician (980-1037). Quanon fe Teb is known as the Canon of Medicine by Ibn-e-Sina (Avicenna). His book has been taught for many years in western universities (7). In Quanon fe Teb he explained one of the heart disorders as a vibration movement named palpitation for repelling a disturbance substance from its inside or its membrane, then we can mean it as an arrhythmia that sometimes comes

Implication for health policy makers/practice/research/medical education:

This letter will give us the Avicenna aspect on arrhythmia, and also we can compare its view with modern medicine, and we obtain some ideas about their differences and similarities.

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to produce palpitation, or if it is more severe due to syncope (8). In modern medicine, vascular occlusion and ischemia may lead to various arrhythmia (9) and based on Avicenna aspect he has said that the occlusion in blood vessels can causes palpitation or heart vibration (4). Avicenna also believed that many other causes as below can produce palpitation: He as many other ancient scientists believed that the human body is composed of 4 humors (8, 10). Then if each of these humors becomes extensive or decayed, can make dis-temperment, and the disease may occur. Heart malfunction that is caused by anything distressing to the heart, this hurtful cause could be within the heart or in its membrane or in the adjacent organs like brain, stomach, liver, lung, uterus and intestine or in the whole body that would contribute to distressing the heart. This often comes from humor or non-humor substance, or simple dis-temperment or sometimes from dissociation or blockage, infection, or weakness of the heart. It is the humor, sanguine, bile, phlegm or melancholy that may block the arteries. The phlegmatic wet humor can be accumulated in the heart membrane, or it may be due to melancholy humor that would block the cardiac arteries. Whatever of simple dis-temperment or any dis-temperment that dominates the heart would bring around weakness and any weakness of the heart in return may be the cause for the heart arrhythmia (11). Hot inflammation, fevers, occlusion in heart and lung vessels, toxins, bites, sensitive heart reaction to any little cause or in association with other organ diseases as pericardial inflammation, stomach and lung disorders, for example in patients with asthma also can produce palpitation (8).

Avicenna and other ancient scientists specified the causes of palpitation based on many symptoms and signs in patients, the most important is: pulse feeling under 4 fingers (12), If the pulse rate is rapid indicates of sanguine dis-temperment, if pulse under fingers is felt tight indicates melancholy and bile dis-temperment and if pulse rate is slow indicates of phlegmatic dis-temperment (8). A doctor can detect an irregular heartbeat during a physical exam by taking pulse or through an electrocardiogram (ECG) (4). Based on Avicenna and other ancient scientist aspects, we can distinguish additional causes of Arrhythmia except heart, and we treat it in a different way which may help us to avoid side effects of many anti arrhythmic drugs.

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References

1. Plum B. *Cecil text book of Internal Medicine*. 20th ed: Saunders company; 1996.
2. Edward H. *Guyton and Hall textbook of medical physiology*. 12th ed; 2011.
3. Foley RN, Parfrey PS, Sarnak MJ. Clinical epidemiology of cardiovascular disease in chronic renal disease. *Am J Kidney Dis*. 1998;**32**(5):S112-S119.
4. Harrington DR. *Arrhythmia (Irregular Heartbeat)*: Community WHD; 2005. Available from: http://www.medicinenet.com/arrhythmia_irregular_heartbeat/article.htm.
5. Thavendiranathan P, Bagai A, Khoo C, Dorian P, Choudhry NK. Does this patient with palpitations have a cardiac arrhythmia? *JAMA*. 2009;**302**(19):2135-43.
6. Zimetbaum P, Josephson ME. Evaluation of patients with palpitations. *N Engl J Med*. 1998;**338**(19):1369-73.
7. Chooapani R, Mosaddegh M, Gir AA, Emtiazy M. Avicenna (Ibn Sina) aspect of atherosclerosis. *Int J Cardiol*. 2012;**156**(3):330.
8. *Qanon fe Teb*. Beirut-Lebanon: Alaalami Library; 2005.
9. Tatli E, Alicik G, Buturak A, Yilmaztepe M, Aktoz M. Arrhythmias following revascularization procedures in the course of acute myocardial infarction: are they indicators of reperfusion or ongoing ischemia? *ScientificWorldJournal*. 2013;**2013**:160380.
10. Emtiazy M, Keshavarz M, Khodadoost M, Kamalinejad M, Gooshahgir SA, Shahradsajestani H, et al. Relation between Body Humors and Hypercholesterolemia: An Iranian Traditional Medicine Perspective Based on the Teaching of Avicenna. *Iran Red Crescent Med J*. 2012;**14**(3):133-8.
11. Azam Khan M. *Exir-e-Azam*. 2nd ed; 2011.
12. Alizadeh M, Keshavarz M, Ebadiani M, Nazem E, Isfahani MM. Complexity and rationality of Avicenna's pulsology: a step towards understanding the past for today's applications. *Int J Cardiol*. 2012;**157**(3):434-5.