

Letter to the Editor

Ibn Sina and Galen Were Right: The Heart Exhibits Right to Left Communication Between the Fibers of the Muscular Part of the Interventricular Septum

Pekka J. Kuusela, MD^{1*}¹Private Internist, Kuopio, Finland**Dear Editor,**

I read out of curiosity the article by Pezisai Mazengenya and Rashid Bhikha entitled 'An analysis of historical vignettes by Ibn Sina in the Canon of Medicine on the structure and function of the cardiorespiratory apparatus'.¹ Galen and the other ancient physicians discovered the communication from right to left through interventricular septum (IVS) of the heart by vivisections. They saw the blood flows at the right atrial filling phase at the end of the diastole right to left through the central muscular part of the IVS. They did not find the middle ventricle in the IVS. The communication is not a canal or blood vessel, but a slit between the fibers of the muscle surrounded by a sphincter in the middle of the left IVS. The communication is feasible to be patent by relaxing and widening of the helical heart at the right atrial filling phase at the end of the fetal diastole. Hypoxia may be the physiological factor to recruit the communication of the fetal heart and augment flow of the oxygenated blood from right to left. The fourth heart sound is common in ischemic heart disease. The flow of venous blood passing from right to left through the communication into the adult left ventricle may cause the fourth heart sound and reach the coronary arteries. Cardiac ischemia

may become worse. That may be pathophysiologic for the syndrome X.²⁻⁶

Conflict of Interest Disclosures


The author has no conflicts of interest.

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