LETTER TO EDITOR

Avicenna and Obstetrics: Fetal Sex Determination

Avicenna (Ibn Sina) was a great Persian scientist (980-1037 A.D.), whose reputation has been spread all over the world particularly as a physician. He was one of the pioneers in many fields of medicine such as endocrinology¹, oncology² and urology³. Nevertheless, no one, to the best of my knowledge, has focused on the prediction of fetal sex in Canon (*Al-Qanun fi-al-Tibb*). In this way, I would like to draw attention to fetal sex determination about one thousand years ago (*without ultrasound*). Avicenna described several signs and symptoms during pregnancy to predict the sex of a baby in his book⁴:

A mother carrying a male fetus has a healthier appearance, more smooth body skin, better appetite, and she suffers from pregnancy complications less than mothers with female fetus do. In mother of a male baby, breast changes during pregnancy such as increase in size and color change in the nipple beginning on right side. Color of nipple and of leg vessels tend to be red rather than black in pregnant women with male offspring. In addition, a pregnant woman bearing a son is subjected to swelling of the legs and pulses

Mohammad Reza Sasani¹

1- Assistant Professor, Medical Imaging Research Center, Department of Radiology, Shiraz University of Medical Sciences, Shiraz, Iran 131

Correspondence: Mohammad Reza Sasani Department of Radiology, Nemazee Teaching Hospital, Zand Street, Shiraz, Iran sasanimrz@gmail.com

1- Afshar, 2010: 447-53. 2- Ibid.

- 3- Kardeh, 2014: 993-96.
- 4- Avicenna, 2013: 309-311.

Res Hist Med 2016; 5(3)

in right hand more prominent than the left one. Movement of the male offspring in uterus begins at the third month of pregnancy but of the female one begins at the fourth month of pregnancy. Furthermore, Avicenna stated that other physicians have said that milk of pregnant women with boy is floating on the water but that of pregnant women with girl would move down.

The issue of fetal sex prediction without ultrasound can be a subject of research, indeed, for further effort to evaluate the reliability of represented signs and symptoms in Avicenna's Canon. In this way, there are some studies on the relationship between fetal sex and maternal nausea and vomiting, or hyperemesis gravidarum in modern medicine. Schiff MA *et al.*⁵ concluded that pregnancies complicated by hyperemesis gravidarum show increased female to male sex ratio. Davis⁶ did review papers and stated that mothers with female fetus often have nausea and vomiting of pregnancy compared with mothers carrying a male fetus. These papers are documents verifying Avicenna's idea that mothers with female fetus suffer from pregnancy complications more than mothers of male baby do.

References

Afshar A. Honoring Avicenna, the great Persian physician on the world's postage stamps. *Arch Iran Med.* 2010;**13**:447-53.

Avicenna. *The Canon of Medicine (Al-Qanun fi-al-Tibb)*. Translated by Sharafkandi A. 11th Edition. Tehran: Soroush Press; 2013. [In Persian]

Davis M. Nausea and Vomiting of Pregnancy: An Evidence-based Review. *J Perinat Neonatal Nurs*. 2004; **18**:312-28.

Kardeh S, Choopani R, Mahmoudi Nezhad GS, Zargaran A. The urinary catheter and its significant applications described by Avicenna (980-1037 AD) in the canon of medicine. *Urology*. 2014; **84**: 993-96.

Schiff MA, Reed SD, Daling JR. The sex ratio of pregnancies complicated by hospitalisation for hyperemesis gravidarum. *BJOG*. 2004; **111**:27-30.

Received: 13 Dec 2015; Accepted: 27 Jul 2016; Online published: 5 Aug 2016 Research on History of Medicine/ 2016 Aug; 5(3): 131-132 5- Schiff, 2004: 27-30.6- Davis, 2004: 312-28.

Res Hist Med 2016; 5(3)