



## Avicenna and Oral Lithotripters

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### Dear Editor-in-Chief

Renal Stone is one of the fairly common diseases in all over the world. According to statistics, its prevalence in America is between 10 to 15% (1). Iran and its neighbors such as Turkey and Pakistan locate on stone-making region. The exact prevalence and incidence rates of urinary calculi in Iran are not clear (2).

Since a) mortality rate in this disease is not high, b) there is no longer time to invention and applying modern methods such as ESWL, PCNL, and TUL in order to cure Renal Stone, c) there is no evidence implying that its prevalence has been low in the past, there have been possibly effective treatments to renal stone, on the other hand, despite of discovering modern and effective methods to cure renal stone, none of them are without side-effects. ancient principles of medicine are too different in comparison with modern medicine and description of diseases (3). Traditional Iranian Medicine (TIM) can be used in conjunction with and as an aid to the conventional medicine (4).

However, human being has recognized this disease since many years ago in accordance with historical evidences. Also, "Ferdows Alhekmat" is one of the oldest text books which are available for us today. This book was written by Ali Ibn Rabban Tabari, one of Islamic Lands' physicians in the 9<sup>th</sup> century. This

book has referred to symptoms and treatment of renal stone (5).

One of medical books' masterpieces is Al-Ghanoon which was written by Ibn Sina in the early 11<sup>th</sup> century (6). He allocated an isolated chapter to renal stone in which its etiology, symptoms, and treatment were discussed. Also, he referred to a group of oral drugs that break up renal stone in treatment part of this book. So, he called them "Mofattet" which is equal to "Lithotripter" in English language.

According to Ibn Sina in the Ghanoon second book, when these drugs encounter to a solid substance, they will turn it into tiny components (7). He believed that Mofattet drugs have various types based on their effect on compact and non-compact stones and the location of stone formation. They are as follows;

Some of them can just break up tiny and not very compact stones.

Some of them can effect on Renal Stone, but not on Bladder Stone.

Some of them can effect on Renal Stone and some of Bladder Stone too, but not all of them.

Some of Mofattet drugs can specially effect on both Renal and Bladder Stone (8).

It must be paid special attention to this theory with regards to Ibn Sina scientific degree

among Eastern and Western intellectuals. Since prevalence and suffering of this disease is high in Iran, it is recommended that effectiveness of some of Ibn Sina Oral Mofattet drugs evaluate by trial clinical studies.

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## References

1. Alan J. Wein (2012). *CAMPBELL-WALSH UROLOGY*. 10<sup>th</sup> ed. Elsevier Saunders. Philadelphia. P.1257.
2. Mehrsai A, Taghizadeh Afshar A, Zohrevand R, Djaladat H Steffes Hj, Hesse A, Pourmand Gh (2004). Evaluation of Urinary Calculi by Infrared Spectroscopy. *Urology Journal*, 1 (3):191-194.
3. Siahpoosh MB, Ebadini M, Shah Hosseini GHR, Nejatbakhsh F (2012). Ancient Theory about Public health through Physical Activity against Hyperlipidemia and IHD. *Iranian J Publ Health*, 41(10):103-104.
4. Rezaeizadeh H, Alizadeh M, Naseri M, Shams Ardakani MR (2009). Traditional Iranian Medicine Point of View on Health and Disease. *Iranian J Publ Health*, 38(Suppl.1): pp.169-172.
5. Ali Ebne Rabban-e- Tabarri ( 2002). *Ferdows Albekemat*. 1<sup>st</sup> ed. Dar Al-kotob Al-ilmiyah: beirut. PP. 186-187.
6. Nadjmabadi M, (1987). *History of medicine in Iran*, 1<sup>st</sup> ed. Tehran University Publication: Tehran. Vol2. P.479.
7. Avicenna H, (2005). *Canon of medicine*. 1<sup>st</sup> ed. Alamy Le- Al-Matbooot Institute: Beirut. Vol1. P.334.
8. Avicenna H, (2005). *Canon of medicine*. 1<sup>st</sup> ed. Alamy Le- Al-Matbooot Institute: Beirut. Vol3. P.333.