

Contributions of Muslim Scientists to Medicine and Related Sciences

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IBN AL-NAFIS CONTRIBUTION IN UROLOGY PROGRESS PRACTICES

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14.1 INTRODUCTION

The objective of this chapter is to explain about the progression of urology that had been made by Ibn al-Nafis, one of the well-known Muslim physicians. Urology is another branch of medicine that based on the treatment of disorders and diseases related to male and female genito-urinary organs including the kidney, ureters, bladder, prostate and genitalia. The significance of this study to highlight about urology study progress done by Ibn al-Nafis, where he made the progress based on Ibn Sina and Greek Galen's work. The methods of findings were based on a collection of literature such as writing like journals, list or report and books as well.

14.2 THE HISTORY OF UROLOGIC KNOWLEDGE IN TIME OF IBN SINA AND GREEK GALEN

Up till now, out of this ongoing long-term research project, several original contributions to the progress of urology by scholars during the Medieval Islamic era have been documented (Abdel Halim, 1985, p.474). This includes contributions to the progress of anatomy, physiology, pathology, clinical urology, therapeutics, operative urology, and instrumentation. Ibn al- Nafis that lived around 1210- 1280 was an arab physician who discovered pulmonary circulation of the blood and was also the one who wrote a commentary on the anatomy of the kidneys and bladder. Then, he made some progress about urology based on Ibn Sina and Greek Galen's study.

Avicenna or Ibn Sina was an Iranian philosopher and physician of the 10th and 11th centuries and he was born in 980 AD in a village near Bokhara, a city in old Persia, and died in 1037 AD in Hamadan, Iran. He was most talented physician during his time and the most valuable contributions are in the fields of angelology (Meshkat, 2004, p.611) cardiology and treatment of kidney diseases (Al-Baba, 1984). One of his famous books called *The Canon of Medicine* has widely been used in the West and the subjects within it are similar to modern medical text books.

For instance, a 30-page chapter on examination of urine is similar to the Campbell-Walsh's Textbook of Urology (Wein *et al.*, 2007). In this book, it describes the collection of urine specimens, methods of examination and characteristics of urine such as color, turbidity, consistency, odor, sediments, volume and presence of foam. In addition, the book also examined the urine characteristics in healthy and sick individuals. At the same