Contributions of Muslim Scientists to Medicine and Related Sciences

Editors
Abdi O. Shuriye
Raihan Othman

IIUM Press
Contents

TITLE
Preface v
Acknowledgment vi
Lists of Contributors vii
Introduction 1
Chapter 1 Al-Majusi Contribution in the Understanding of the Cardiovascular System and Blood Circulation 3
Chapter 2 Al-Majusi: The Pioneer in Obstetrics 7
Chapter 3 Al-Razi Works and Contributions in Neurological Sciences 12
Chapter 4 Ar-Razi on Gout 19
Chapter 5 Ali Bin Isa Al-Kahhal: Pioneer in Ophthalmology 25
Chapter 6 Al-Majusi’s Treatment of Physical Diseases Using Drug Therapy and Surgical Manipulation 30
Chapter 7 Al-Razi’s Understanding and Curing of Smallpox and Measles 35
Chapter 8 Al-Razi’s Contribution to the Study of Nexus between Human Mind and Body 39
Chapter 9 Abu Zayd Ahmed Ibn Sahl Al-Balkhi on Medical Psychology 45
Chapter 10 Contributions of Ashraf Ali Thanwi to Mental Disease Treatment 49
Chapter 11 Ibn Zuhr on Diseases and Treatments 54
Chapter 12 Ibn Al-Jazzar on Fever 59
Chapter 13 Ibn Al-Khatib and his Theory of Contagion 64
Chapter 14 Ibn Al-Nafis Contribution in Urology Progress Practices 67
Chapter 15 Ibn Al-Quff on Preventive Medicine 72
Chapter 16 Ibn Sina on Aromatherapy 76
Chapter 17 Studies in Gynaecology in Zad Al-Musafir Wa Qut Al-Hadir of Abu Jaafar Ibn Al-Jazzar 81
Chapter 18 Contributions of Ibn-Sina in Pharmaceutical Sciences 88
Chapter 19 The Contribution of Ibn Al-Baitar in Medicine 94
Chapter 20 The Contribution of Saghir Akhtar in Pharmaceutical Science 99
Chapter 21 The Glorious Contribution of Ibn Al-Quff on Cardiology and Embryology as Well as Other Surgical Matters 104
Chapter 22 Success Journey of Mehmet Oz in Cardiothoracic Surgery 109
Chapter 23  Abu Al-Qasim Al-Zahrawi’s Contribution to Neurosurgery  115
Chapter 24  Al-Zahrawi Method on Inflammatory Swellings and Tumours Surgery  120
Chapter 25  Oculist’s Contributions to Cataract Operation  126
Chapter 26  Al-Zahrawi Contribution to Medical Instruments  131
Chapter 27  Al-Zahrawi’s Explanation on Bone Fractures and Its Surgical and Non-Surgical Treatments  137
Chapter 28  Inhalation and Oral Anesthetics: Views of Selected Muslim Physicians  144
CHAPTER TWENTY EIGHT

INHALATION AND ORAL ANESTHETICS: VIEWS OF SELECTED MUSLIM PHYSICIANS

Sara Bilal, Mohamed E. S. Mirghani
Fac. Of Eng., International Islamic Univ. Malaysia (IIUM), Jalan Gombak, 53100 Kuala Lumpur, Malaysia

28.1 INTRODUCTION

The physicians during Islamic civilization were familiar with surgery and have practiced different kinds of surgical procedures such as amputation, tonsillectomies, excision of tumors, and in some instances describing technical details. They have given a great attention to sickness pain and have performed surgery using some kind of pain allayment. The main objective of this chapter is to highlight the type of anesthesia early physician have used and who are the first Muslim scientists who have either developed or export anesthetics to their surgery.

This chapter investigates the early Muslim anesthesiologists such as Al-Razi, Ibn Sina, Al-Zahrawi, and Ibn Zuhur among other great surgeons who have paid great attention to the phenomenon of pain and their methodology of using anesthetics. The methodology adopted in this chapter is to find out how these physicians were able to describe the specific actions of anesthetics and side effects of the drugs. They were aware of the length of action expected which denote personal experience and observation. The significance of this chapter is that Muslim physicians’ have categorized anesthesia science into oral and inhalation anesthesia. Also, this chapter shows that the use of anesthesia was one of the reasons for the rise of surgery in the Islamic world to the level of an honorable specialty.

28.2 HISTORY OF ANESTHESIA IN SURGERY

Anesthesia derived from the Greek word meaning an act of relieving pain during surgery and other procedures on the body. Text books at hand, however, indicate that inhalational anesthesia as such was not known before, and that there may have been some attempts, tried by the Greeks and Romans who are reported to have used magic and superstition, hypothermia and real use of analgesic mixtures. Indian surgeons have used Hyoscamus (Henbane) and cannabis indicia as anesthetics and in some cases hypnosis was used as well. There are three important facts about anesthesia must be well corrected through history as stated (Kasem Ajram, 1992) as follows:

28.2.1. Inhalation Anesthesia

C.W. Long, an American in 1845, conducted the first surgery performed under inhalation anesthesia. Six hundred years prior, Muslim physicians and surgeons have