



## Haly Abbas and the Early Description of Obstructive Jaundice

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### Dear Editor-in-Chief

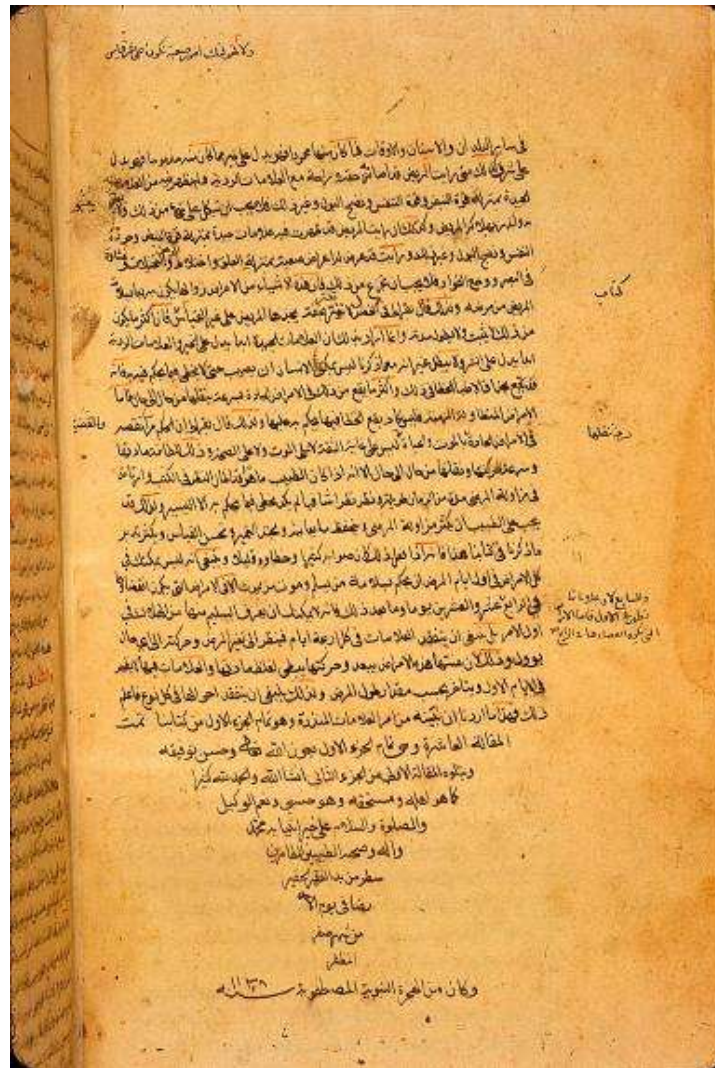
The knowledge of differentiation between hepatic and post-hepatic jaundice was unknown to the ancient physicians. Modern literature often points to *Albrecht von Haller* as being the first to describe obstructive jaundice in 1764 (1). Our recent investigations elucidated that *Haly Abbas* (? 930-994 CE), a medieval Persian physician, introduced this disease and its characteristic clinical findings prior to him. He was an influential physician and surgeon of the *Islamic Medicine Golden Age* (9<sup>th</sup>-12<sup>th</sup> centuries CE). He authored a concise and practical textbook on surgery and medicine, entitled *Kāmil al-Sinā'ah al-Tibbīyah* (The Perfect Book of the Art of Medicine) or *al-Kitāb al-Malikī* (The Royal Book) (Fig. 1) (2). The Royal Book was originally written in Arabic language. It can be divided into two main sections (*Juz'*) by content, each comprised of ten chapters (*Maqala*), and several subsections (3). Gastrointestinal issues are one of the main topics discussed in The Royal Book (4). Haly Abbas has specifically discussed Jaundice in the subsection entitled *Al-Bab-o al-Salis wa al-Sala-soun; fi Elal al-Marareh, wa Asbabaha wa Alamataba* (The Thirty-Third Subsection; On the Conditions Affecting Gallbladder, Their Causes and Manifestations). Haly Abbas pointed to the post-hepatic jaundice, as fol-

lows: "... and sometimes the obstruction occurs within the ducts connecting the gallbladder to the bowel; therefore, the bile amount increases and flows back toward the liver, and distributes through the blood in the body..." (4). Haly Abbas enumerated the clinical manifestations resulting from post-hepatic obstruction, including icteric skin and sclera, dark urine, and pale stool. He explained that the pale stool is only present in the post-hepatic form of the disease (all recent terms in modern nomenclature) (4).

Based on this fact, and according to the aforementioned excerpts from The Royal Book, for what may be the first time in history of medicine, Haly Abbas distinguished between hepatic and post-hepatic jaundice. Avicenna also has described the mentioned differentiation in the chapter of liver diseases after Haly Abbas. It is noteworthy that Avicenna was immensely influenced by his predecessors, including Haly Abbas (5-6).

### Acknowledgements

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**Fig. 1:** A page from a copy of the al-Kitāb al-Malikī (The Royal Book) (belonging to the 1725). This version was completed by a physician Muḥammad ‘Ādil al-Ṭabāt̄ abā’ī. (Courtesy US National Library of Medicine)

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