



## A case of thyroidectomy in the Charaf ed-Din's manuscript (1465)

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Charaf ed-Din (1385–c.1468) was an innovative surgeon and a prominent illustrator who lived in the Ottoman Empire during the fifteenth century. His medical treatise, *Cerrahiyyet'ül-Haniyye* (*Imperial Surgery*, 1465), is the first illustrated surgical textbook written in Turkish. His book also provides comprehensive information about ancient Greek and Islamic knowledge of medicine, mostly based on the comprehensive Arabic medical text *Kitab al-Tasrif* (*The Method of Medicine*) by the physician Abu al-Qasim al-Zahrawi (936–1013) [1, 2].

Fragments of the Charaf ed-Din's manuscript have been published in many books and translated into many languages. The manuscript is located at the Bibliothèque Nationale de France, Paris, France. Figure 1 reports a miniature of

the Charaf ed-Din manuscript illustrating surgery for thyroid nodular goitre, according with Abu al-Qasim al-Zahrawi skills, performed using a knife similar to the Turkish sabre. The miniature has been published and discussed by Merke in his book on the history and iconography of the endemic goitre [3].

### Compliance with ethical standards

**Conflict of interest** The authors declare that there is no conflict of interest.

**Ethical approval** This article does not contain studies with human participants or animals.

**Informed consent** For this type of study, no formal consent is required.

### References

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**Fig. 1** Miniature author illustrating thyroid surgery (reproduced from Turkish Manuscript of Charaf ed-Din—Ms. Suppl. turc 693, Fol. 85. Source gallica.bnf.fr / Bibliothèque Nationale de France)

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