

# **Abu al-Qasim al-Zahrawi** **(936–1013)**

**- Compiled**

**[manzoor@ndf.vsnl.net.in](mailto:manzoor@ndf.vsnl.net.in)**

**Institute of Objective Studies**

**162, Jogabai Main Road,**

**Jamia Nagar, New Delhi - 110025**

**Abu al-Qasim al-Zahrawi**

**Khalaf ibn al-Abbas**

**(936 - 1013)**

## Abu al-Qasim al-Zahrawi (936 - 1013)



Abu al-Qasim Khalaf ibn al-Abbas Al-Zahrawi was born near Cordoba, Spain, when it was part of the Islamic Empire. He was a physician, surgeon and chemist. He is best remembered for his encyclopedia of medicine, the *Al-Tasrif li man ajaz an-il-talif* (*An Aid for Those Who Lack the Capacity to Read Big Books*), known as the *al-Tasrif*. This became a standard reference in Islamic and European medicine for over 500 years. In Europe, Al-Zahrawi was known as Albucasis, and was particularly famous for his surgical knowledge.

## Abu al-Qasim al-Zahrawi (936 - 1013)

Abu al-Qasim Khalaf ibn al-Abbas Al-Zahrawi (936–1013), (**Arabic:** أبو القاسم بن خلف بن العباس الزهراوي) also known in the **West** as Abulcasis, was an **Arab physician** who lived in **Al-Andalus**. He is considered the greatest medieval **surgeon** to have appeared from the Islamic World, and has been described by many as the **father of modern surgery**.<sup>[1]</sup> His greatest contribution to medicine is the *Kitab al-Tasrif*, a thirty-volume encyclopedia of medical practices. His pioneering contributions to the field of surgical procedures and instruments had an enormous impact in the East and West well into the modern period, where some of his discoveries are still applied in medicine to this day.

He was the first physician to describe an **ectopic pregnancy**, and the first physician to identify the hereditary nature of **hemophilia**.

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## Biography

Abū Al-Qāsim was born in the city of [El-Zahra](#), six miles northwest of [Córdoba](#), [Andalusia](#). He was descended from the [Ansar Arab](#) tribe who migrated from [Hejaz](#) modern day west [Saudi Arabia](#) and settled earlier in Spain. He lived most of his life in Córdoba. It is also where he studied, taught and practiced medicine and surgery until shortly before his death in about 1013, two years after the sacking of El-Zahra.

Few details remain regarding his life, aside from his published work, due to the destruction of El-Zahra during later Castillian-Andalusian conflicts. His name first appears in the writings of [Abu Muhammad bin Hazm](#) (993 – 1064), who listed him among the greatest physicians of Moorish Spain. But we have the first detailed biography of al-Zahrawī from al-Ḥumaydī's *Jadhwat al-Muqtabis* (*On Andalusian Savants*), completed six decades after al-Zahrawī's death.

He was a contemporary of [Andalusian chemists](#) such as [Ibn al-Wafid](#), [Maslamah Ibn Ahmad al-Majriti](#) and [Artephius](#).

[http://en.wikipedia.org/wiki/Abu\\_al-Qasim\\_al-Zahrawi](http://en.wikipedia.org/wiki/Abu_al-Qasim_al-Zahrawi)

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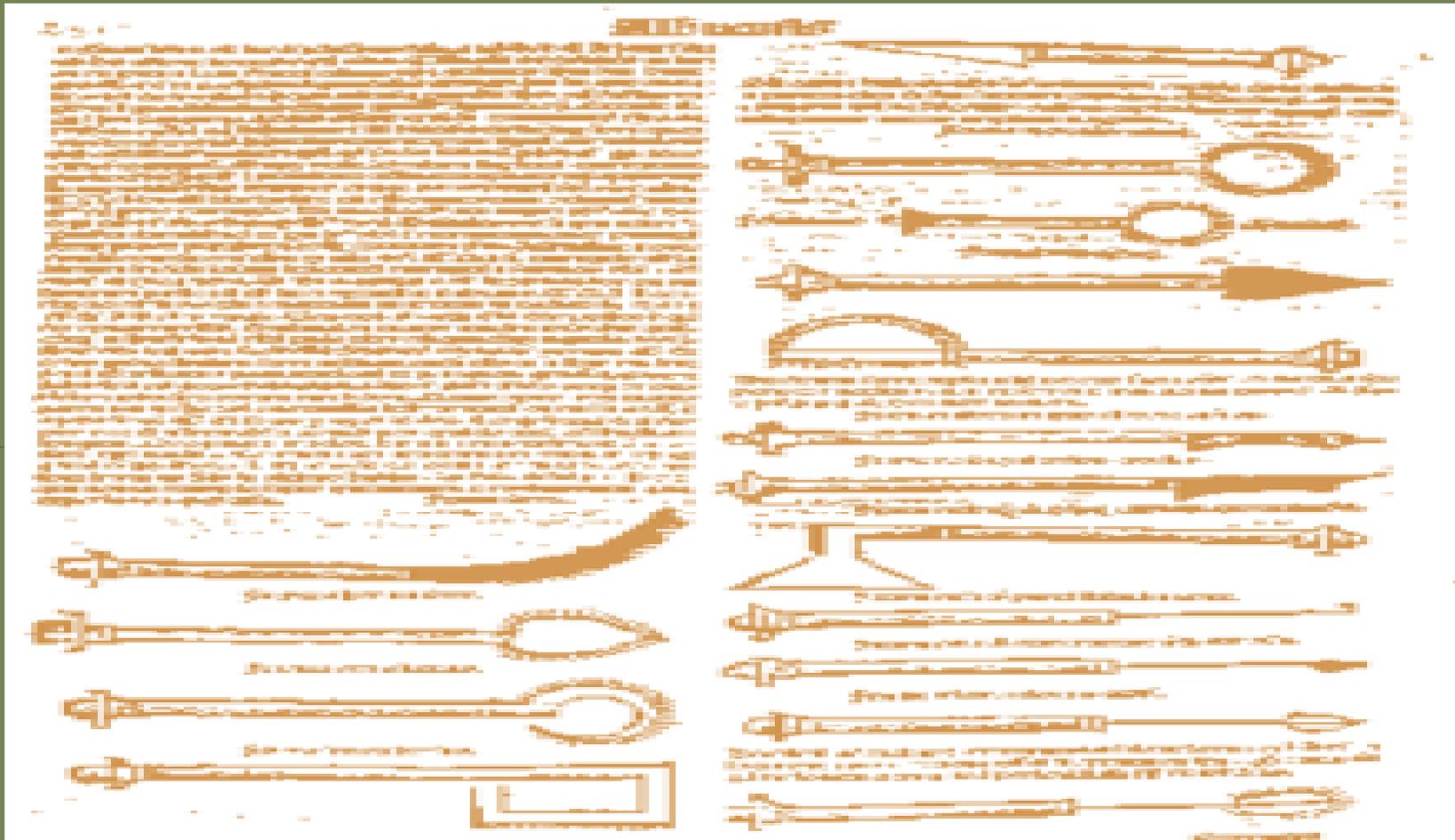
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## Works

Abū al-Qāsim was a court physician to the **Andalusian** caliph **Al-Hakam II**. He devoted his entire life and genius to the advancement of medicine as a whole and surgery in particular. His best work was the *Kitab al-Tasrif*, discussed below.

Abū al-Qāsim specialized in curing disease by **cauterization**. He invented several **devices used during surgery**, for purposes such as inspection of the interior of the **urethra**, applying and removing foreign bodies from the **throat**, inspection of the **ear**, etc. He is also credited to be the first to describe **ectopic pregnancy** in 963, in those days a fatal affliction.

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Page from a 1531 Latin translation by Peter Argellata of El Zahrawi's treatise on surgical and medical instruments.

[http://en.wikipedia.org/wiki/Abu\\_al-Qasim\\_al-Zahrawi](http://en.wikipedia.org/wiki/Abu_al-Qasim_al-Zahrawi)

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## Abu al-Qasim al-Zahrawi (936 - 1013)

### Kitab al-Tasrif

Abū al-Qāsim's thirty-chapter medical treatise, *Kitab al-Tasrif*, completed in the year 1000, covered a broad range of medical topics, including [dentistry](#) and [childbirth](#), which contained data that had accumulated during a career that spanned almost 50 years of training, teaching and practice. In it he also wrote of the importance of a positive [doctor-patient relationship](#) and wrote affectionately of his students, whom he referred to as "my children". He also emphasized the importance of treating patients irrespective of their social status. He encouraged the close observation of individual cases in order to make the most accurate diagnosis and the best possible treatment.

*Al-Tasrif* was later translated into [Latin](#) by [Gerard of Cremona](#) in the 12th century, and illustrated. For perhaps five centuries during the [European Middle Ages](#), it was the primary source for [European](#) medical knowledge, and served as a reference for doctors and surgeons.

Not always properly credited, Abū Al-Qāsim's *al-Tasrif* described both what would later become known as "Kocher's method" for treating a dislocated shoulder and "Walcher position" in obstetrics. *Al-Tasrif* described how to ligature blood vessels almost 600 years before Ambroise Paré, and was the first recorded book to document several dental devices and explain the hereditary nature of haemophilia. He was also the first to describe a surgical procedure for ligating the temporal artery for migraine, also almost 600 years before Pare recorded that he had ligated his own temporal artery for headache that conforms to current descriptions of migraine. Abū al-Qāsim was therefore the first to describe the migraine surgery procedure that is enjoying a revival in the 21st century, spearheaded by Elliot Shevel a South African surgeon.

## Abu al-Qasim al-Zahrawi (936 - 1013)

Abū al-Qāsim also described the use of **forceps** in vaginal deliveries. He introduced over 200 **surgical instruments**. Many of these instruments were never used before by any previous surgeons. Hamidan, for example, listed at least twenty six innovative surgical instruments that Abulcasis introduced.

His use of **catgut** for internal stitching is still practised in modern surgery. The catgut appears to be the only natural substance capable of dissolving and is acceptable by the body. Abū al-Qāsim also invented the forceps for extracting a dead **fetus**, as illustrated in the *Al-Tasrif*.

### Reception

In the 14th century, the **French surgeon Guy de Chauliac quoted *al-Tasrif* over 200 times**. Pietro Argallata (d. 1453) described Abū al-Qāsim as "**without doubt the chief of all surgeons**". **Abū al-Qāsim's influence continued for at least five centuries**, extending into the Renaissance, evidenced by *al-Tasrif's* frequent reference by French surgeon Jacques Delechamps (1513–1588).

The street in Córdoba where he lived is named in his honor as "Calle Albucasis". On this street he lived in house no. 6, which is preserved today by the Spanish Tourist Board with a bronze plaque (awarded in January 1977) which reads: "This was the house where Abul-Qasim lived.

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In his book Al-Tasrif, Al-Zahrawi has also **discussed the preparation of various medicines**, in addition to a comprehensive account of surgical treatment in specialized branches, whose modern counterparts are E.N.T., Ophthalmology, etc. In connection with the preparation of medicines, he has also described in detail the application of such techniques as sublimation and decantation. Al-Zahrawi was also **an expert in dentistry**, and his book contains sketches of various instruments used thereof, in addition to a description of various important dental operations. He discussed the problem of non-aligned or deformed teeth and how to rectify these defects. **He developed the technique of preparing artificial teeth and of replacement of defective teeth by these.** In medicine, he was the first to describe in detail the unusual disease, **haemophilia**.

<http://www.martinfrost.ws/htmlfiles/sept2009/abulcasis-altasrif.html>

## **Abu al-Qasim al-Zahrawi (936 - 1013)**

**The variety of operations covered is amazing. In this treatise El Zahrawi discussed cauterisation, bloodletting, midwifery and obstetrics and the treatment of wounds. He described the exposure and division of the temporal artery to relieve certain types of headaches, diversion of urine into the rectum, reduction mammoplasty for excessively large breasts and the extraction of cataracts. He wrote extensively about injuries to bones and joints, even mentioning fractures of the nasal bones and of the vertebrae. In fact 'Kocher's method' for reducing a dislocated shoulder was described in At-Tasrif long before Kocher was born! El Zahrawi outlined the use of caustics in surgery, fully described tonsillectomy, tracheotomy and craniotomy- operations he had performed on a dead foetus. He explained how to use a hook to extract a polyp from the nose, how to use a bulb Syringe he had invented for giving enemas to children and how to use a metallic Bladder syringe and speculum to extract bladder stones.**

**El Zahrawi was the first to describe the so-called "Walcher position" in obstetrics; the first to depict dental arches, tongue depressors and lead catheters and the first to describe clearly the hereditary circumstances surrounding haemophilia. He also described ligaturing of blood vessels long before Ambroise Pare.**

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