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History of ophthalmology

One of the earliest ophthalmologists

The question 'who were the very first ophthalmologists?' is interesting, but difficult to ascertain. We know that in the fourth century BC, ophthalmology was a recognised specialty at Alexandria, and even before that Hippocrates commented on trichiasis and ocular anatomy. However, little information survives.

But around AD 800, Hunain Is Haq lived and practised and, by amazing good fortune, much knowledge about him has survived. Enough, at least, for us to confidently label him an 'ophthalmologist'.

Hunain lived in Mesopotamia, where the ruling caliphs tended to be patrons of the arts. However, in Hunain's time, El Ma'amoun took a particular interest in Greek medicine. Hunain's father was an apothecary, and being inclined towards medicine, Hunain studied at the Persian Syrian medical school, where he perfected his Greek in order to learn directly from the texts of Galen.

He became apprenticed to El Ma'amoun's physician, graduating to the appointment of superintendent of the House of Wisdom (library). Here he had access to most of Galen's work. He translated these into Arabic, and consolidated his interest in ophthalmology.

From then, Hunain passed his years in academic study, translation, and in ophthalmic practice, learning which treatments improved his patients and which did not. In later life, pulling together the threads of his study and practical experience, he wrote 'The ten treatises on the eye', the best known of his many publications.

This was a systematic and practical ophthalmic textbook, beginning with chapters on the anatomy of the eye and ophthalmic nerves. As natural and malign 'humours' were supposed to flow along paths between the organs, the latter term would have different significance and importance than in our texts. Drugs and treatment according to Galen were described. Diseases of the membranes of the eye were covered in depth, and symptoms of conjunctival disorder. Hunain clearly recognised pannus, though calling it 'kirsophthalmos'. The latter chapters informed the students who came after him about simple remedies and detailed operative techniques for couching. Last came a comprehensive list of ophthalmic prescriptions, which doubtless

were discussed, altered, and subjected to trial by each generation of physicians that followed.

Details of Hunain's daily life are preserved: academic study and clinical practice were balanced by time for a daily ride, a Turkish bath, and a short nap. Discussion with colleagues took place over cake and wine, and Hunain dined on chicken and bread and enjoyed half a measure of old wine daily. Many an overworked modern practitioner could not wish for more.

Although blessed in his lifestyle and library facilities, Hunain's work was disrupted by problems peculiar to his time. Conflict arose when his employer, the caliph, ordered him to actions incompatible with his Hippocratic oath (the poisoning of an inconvenient courtier). Losing his temper, the caliph imprisoned him for a year. But when Hunain refused again, under threat of death, the caliph gave up on the project and allowed him to return to work.

A few years later, religious conflict occurred as the Muslim caliphs denounced all other faiths. Hunain's study was disrupted again as he was hauled out of his library, made to spit on the Virgin's statue, and re-imprisoned.

The story of how these details survived sheds light on how famous an ophthalmologist Hunain was. Hirschberg investigated Arabian ophthalmology and found a plethora of Arabic and Persian texts referring heavily to Hunain, almost in the vein in which physics texts refer to Einstein today. In his search for Hunain, he then found Latin translations of the 'Ten treatises' printed in Lyons and Venice in 1515 and 1541 respectively. This implies that Hunain's book was still a standard text, so many centuries later! Hirschberg also noted that both translators independently claimed the work as their own!

The whole manuscript of Hunain's textbook was rediscovered this century, by Meyerhof, in both the library of Gregory the IVth in St Petersburg, and the library of Taimur Pasha in Egypt.

FIONA ROMAN

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