

THE OPHTHALMOLOGICAL OBSERVATIONS IN CAELIUS AURELIANUS TEXT ON ACUTE AND ON CHRONIC DISEASES

OFTALMOLOŠKE OPSERVACIJE U TEKSTU CELIJA AURELIJANA O AKUTNIM I KRONIČNIM BOLESTIMA

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SUMMARY

Caelius Aurelianus' Latin translation, De morbis acutis et chronicis, of Soranus of Ephesus' original Greek work is a work devoted to internal medicine. Nevertheless, there are some observations about ocular pathologies which reveal the level of the knowledge at that time about the eye and their use as elements of pathological semiology.

Key words: *Caelius Aurelianus; Soranus of Ephesus; Ocular Diseases; Semiology.*

Caelius Aurelianus' (5th century AD)[1] Latin medical text *De morbis acutis et chronicis* (Fig.1) (Caelius Aurelianus *On Acute Diseases and on Chronic Diseases*) [2] is a Latin translation of Soranus of Ephesus' (2nd half of 1st century - 1st quarter of 2nd century AD) two works written in Greek, *Tardae* or *Chronicae Passiones* (five books) and *Celeres* or *Acutae Passiones* (three books), which now are lost [3]. Although Caelius Aurelianus declares emphatically that he translates the original Greek works, there is a

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Figure 1. Caelius Aurelianus *De morbis acutis et chronicis*.

question about the additions he might have made forming the Latin text. Nevertheless, it is now believed that the majority of the translation has not altered Soranus of Ephesus' work, thus reproducing the ideas of the Greek physician [4].

This Latin translation is a medical book devoted to internal medicine, even though mental diseases are also discussed, as according to ancient Greek medical thought there was an absolute link between body and mind [5]. The focus on the pathophysiology, diagnosis and treatment of these diseases give us the opportunity to look into some observations on ocular diseases and on ophthalmological signs of corporal and mental diseases despite the fact that neither Soranus of Ephesus nor Caelius Aurelianus had a direct intention to study ocular disease, at least not in this work.

The author used the disease of cataract as an example in order to point out that Aristotle should clarify which liquids of the body thicken in pleurisy instead of speaking in general about this transition of the liquids, because

it can provoke confusion since the same is observed in other diseases like cataract (Caelius Aurelianus *On Acute Diseases and on Chronic Diseases* pp.180-183, 87.10-88.5). This perception gives us the opportunity to notice that Soranus of Ephesus via Caelius Aurelianus, though was the most famous member of the Methodic Sect [6], which supported stereopathology [7], did not differentiate himself from the humoral pathology in the case of cataract [8].

Cataract would also be used as an example, when the treatment of mania would be examined. In this passage the author underlines that although a therapy for mania is offered, there is also the possibility that the patient has not recovered as it happens with cataract. At this point the author describes the operation of cataract at ancient times by piercing the eye lens, stressing that many times the vision remains defected and attributing this fact - not only for cataract but also for mania - to the habituation of the patient and not to the incapacity to offer a proper therapy (Caelius Aurelianus *On Acute Diseases and on Chronic Diseases* pp.552-553, 170.3-10). This passage is very important because on one hand it reveals that cataract operation remained the same in Soranus of Ephesus and Caelius Aurelianus' time as at the time of the Hippocratic School, while there was not any progress in understanding the pathophysiology of the disease [9]. In addition, ancient physicians did not recognize their inability to cure this disease, because they did not know the eye's anatomy and the physiology of the vision [10].

Studying the phenomenon of paralysis, the author starts his description on the paralytic signs at the top of human body and the paralysis which is observed in the eyes (Caelius Aurelianus *On Acute Diseases and on Chronic Diseases* pp.566-569, 5.1-6.5). He begins with the paralysis of eyebrows. He notices that the eyebrow can either remain lifted so the eyelid is also raised or it hangs down.

Analogous is also his description about the paralysis of eyelid. He mentions the ptosis of eyelid which covers the eyeball and its paralysis so the eye remains constantly open. It is obvious that in this second reference he speaks about the lagophthalmos, but we should notice that despite the fact that this term is in use already by the time of Pseudo-Galen (2nd century AD) (Pseudo-Galenus Med., *Definitiones medicae* 19.438.11-16) [11] and Caelius Aurelianus uses Greek medical terms in this work many times [12], this time he omitted the Greek term. The same will be repeated in the following lines, where he describes entropion and ectropion. Speaking about a special case

of paralysis of the lower eyelid, he mentions only that the lower eyelid can bent inward and outward skipping the already known Greek medical terms. Nevertheless he continues his description with the paralysis of the coats or membranes of the eye as he calls them, but without specifying them, where he uses the terms 'mydriasis' for the dilatation of the pupil and 'phthisis' for miosis. He remains in accordance with the medical terminology regarding the term 'mydriasis'[9] and he does not forget to connect the condition of miosis with the term 'phthisis', which was used mainly in ancient times to describe emaciating conditions and mostly a pulmonary disease, probably pulmonary tuberculosis, because the disease provokes latent fever, cough and emaciation of the body as he describes it in another chapter in the same book (Caelius Aurelianus *On Acute Diseases and on Chronic Diseases* pp.694-709, 196.1-218.9), by following the belief that the shrink of the pupil is due to the loss of its nourishment as it was thought already from the time of Galen (2nd century AD) (Galenus Med. *De usu partium* 3.784.17-19) [13].

From this passage referring to the paralysis on the eye, it is obvious that apart from the description which is accurate, the author has a great difficulty in understanding the real causes of the paralysis and to connect the symptomatology with the nerves, although they had been discovered by that time [14]. In addition, the limited use of medical terms concerning eye pathology and the introduction of a terminology used in other diseases points out that the author either was not interested about the eye in general in order to remain accurate in his description, because this book focuses mainly on internal pathology or he had a limited knowledge about ocular diseases. The lack of ophthalmological knowledge [15] should be assigned to Caelius Aurelianus and not to Soranus of Ephesus, because this physician [16,17] had written a special book on ocular diseases, that is now lost [1].

The other references to eyes in this work are devoted to the abstract view of patients suffering from loss of conscience and to the eyeball hyperaemia observed in the condition of high fever. Only one reference concerns jaundice. This last one is more interesting, because the author uses as a criterion for the severity of the jaundice whether yellow has turned the sclera (Caelius Aurelianus *On Acute Diseases and on Chronic Diseases* pp.756-757, 71.8-10).

In conclusion, the majority of the ophthalmological observations that one can detect in this Caelius Aurelianus' Latin translation of Soranus of Ephesus' original Greek works, have as common their use as elements of pathological semiology, which will help the physician to reach a diagnosis.

Sometimes these observations reveal the author's inability to understand the anatomy, physiology and pathophysiology of the eye. This time the interest in ocular pathology is superseded by the focus on internal pathology.

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SAŽETAK

Latinski prijevod Celija Aurelijana De morbis acutis et chronicis, grčkoga originala Sorana iz Efeza, djelo je posvećeno internoj medicini. Unatoč tome ono obuhvaća pojedine opservacije o očnoj patologiji, koje otkrivaju razinu tadašnjega znanja o očima i njihovoj uporabi kao elemenata patološke semiologije.

Ključne riječi: *Celije Aurelijan; Soran iz Efeza; očne bolesti; semiologija.*