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# ЖИВОТ И ДЕЛО СОРАНА ЕФЕСКОГ, "ОЦА ГИНЕКОЛОГИЈЕ"

## LIFE AND WORK OF SORANUS OF EPHESUS, « THE FATHER OF GYNECOLOGY»

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## (1) КОНСТАНТОПУЛИО – УНИВЕРЗИТЕТСКА БОЛНИЦА "АГИА ОЛГА", ОДЕЉЕЊЕ ЗА ОРТОПЕДИЈУ, АТИНА, ГРЧКА, (2) ВОЈНА АКАДЕМИЈА ГРЧКЕ, АТИНА, ГРЧКА

Сажетак: Маргинализовање женског пола, које је нераздвојиво повезано са анахронистичким предрасудама према општеприхваћеним тврдњама, појављује се као доминантна компонента грчко-римског друштвеног мозаика. Заиста, упркос дивергентним случајевима значајне манифестације дате патогенезе налазе се у разноврсним делатностима (кородирани међуљудски односи, пасивно учешће у политичком животу, духовно назадњаштво). Међутим, револуционарне личности, инспирисане аутентичним хуманистичким идеалима, реаговале су динамично. Уз непретенциозно разумевање, дубоки мислиоци, носиоци грчког образовања, супротставили су се жестоком искорењењу таквих провокативних полних дискриминација. Са рационалним закључцима деградирали су постојеће погрешне приступе; мултидимензионално постарали су се о суштинској недемонизацији и о пожељном искупљењу жена. Соран Ефески, примерном научности и истинском пожртвованошћу, обистинио је дијахронично мишљење да се малоазијска земља неоспорно сматра благословеним родним местом обдарених физиономија. Одличан познавалац људске анатомије, најзначајнији представник периода пре Галена, истакао је вредност опширног посматрања у вези са еволуцијским током, не само гинеколошких, већ и педијатријских, психијатријских и ортопедских обољења. Колико на теоретском нивоу толико и преко својих надахнутих списа уз јединствену методичност Соран се осврнуо на универзално обавештење о специфичним осетљивостима женског организма. Истовремено је истражио сваку фазу нормалног порођаја: каталитички процес зачећа и кључне контрацептивне праксе; горући проблем плодности; обезбеђивање неометане трудноће; неупоредив значај дојења. Захваљујући разноликом доприносу и темељним услугама добио је почасни надимак "отац гинекологије".

Кључне речи: Соран, гинекологија, ортопедија, педијатрија, психијатрија.

The marginalisation of the female sex that is indissolubly connected with anachronistic Summary: prejudices against generally accepted claims appears as the dominant component of the Greco-Roman social mosaic. Indeed, despite that, divergent cases of significant manifestations of the mentioned pathogenesis can be found in a variety of activities (corroded interpersonal relationships, passive participation in political life, spiritual obscurantism). However, revolutionary personalities, inspired by authentic humanistic ideals reacted dynamically. With unpretentious understanding, profound thinkers, recipients of Greek education, were opposed to the fierce eradication of such provocative sexual discriminations. With their rational conclusions they degraded the existing wrong approaches; multidimensionally they have taken care of the essential undemonisation and the desirable redemption of women. Soranus of Ephesus, with exemplary knowledge and true devotion, verified the diachronic view that the land of Asia Minor is indisputably considered a blessed birthplace of endowed physiognomies. As a great connoisseur of the human anatomy, the most important representative of the pre- Galenic period, he underlined the value of extensive observations related to the evolution course, not only of gynaecological, but also of paediatric, psychiatric and orthopaedic diseases. At the theoretical level as well as through his inspired writings accompanied with unique methodology, Soranus paid attention to the universal information about the specific sensitivities of the female body. At the same time he researched every phase of normal birth: the catalytic process of conception and the key contraceptive practices; the burning issue of fertility; the ensuring of smooth pregnancy; the unparalleled importance of breastfeeding.

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**Key words:** Soranus, gynaecology, orthopaedics, paediatrics, psychiatry

#### LIFE

Soranus was born in the late 1<sup>st</sup> century AD (probably in 98 AD) in Ephesus, a city with a long tradition in medicine, but also a strong interest in scientific developments. His parents were called Menander and Phoebe [1].

Since his childhood Soranus had revealed vivid inclination for medical science. With remarkable results he studied gynaecology and obstetrics in Alexandria, the most famous centre of medical studies in that era. He belonged to the School of the Methodicians, following the principles of Asclepiads of Bithynia and his student Themison of Laodicea. He practiced his art with great success and universal recognition. Thus the growing reputation led him to Rome, where he was active during the years of the emperors Trajan and Apart from Gvnaecology Hadrian. he systematically dealt with Anatomy, Physiology and Pathology [2]. His remarkable abilities rescued many women from excruciating diseases and difficult pregnancies.

The details concerning his life and activity have not been saved except that he has been found in Aquitaine, in order to treat skin diseases that at that time were a major threat. He most probably died in 138 AD.

### SORANUS' MEDICAL ASPECTS

Already in antiquity Soranus was considered the most important representative of the School of the Methodicians which first appeared in the mid-1<sup>st</sup> century BC. It became the most important School during the years of great prosperity of the Roman Empire.

Soranus, a highly gifted spirit, with broad education and unparalleled studiousness opposed to the dominant theory and various treatments suggested in the School of the Methodicians. In addition he radically differentiates the standpoints from the existing surgical practices. As a rationalist he condemns the superstitions [3] and criticizes the risky Greek shamanism, while rejecting the traditional methods of the Roman medicine. For the smooth achievement of medical profession he believes that the full training of practitioners is a necessary condition. Furthermore he emphasizes the importance of Physiology and

the thorough analysis of the disease aetiology. Because of his innovative studies in Alexandria, he turns eagerly to Anatomy. Reasonably he is viewed as an integrated science personality and he acquires the reputation of a leading gynaecologist, obstetrician and paediatrician.

#### BREASTFEEDING

Soranus was a strong supporter of breastfeeding. recommended He that breastfeeding might not start before the third week after birth, so the mother can have enough time to get rest after the laborious childbirth. Only then the new mother can produce whole milk. During this transitional period an experienced nurturer should be hired. Unquestionably, breast milk seems to be irreplaceable. But in case that the mother is unable to breastfeed and to use substitutes like honey with water or goat's milk, it is advisable to have a nurse.

The responsible choice of such a supportive person should be done with great care. She should not be younger than twenty or older than forty. Besides, she must be healthy and has not given birth more than two or three times. Simultaneously she has to follow a strict nutritional program and not to eat leek, onion, garlic, legumes. Furthermore she should not consume sauces or spice that poison the provided milk. As of meat, she must prefer pork, kid, hare, and deer as they have high nutritional value. Finally she had better drink a lot of water and avoid wine.

A coordinated personality and an excellent character function as an important criterion for selection of an ideal nurturer. It is necessary that the employed woman abstains from sexual intercourse and debauchery, as the given milk may be marred; she has to be gentle and of affectionate style, not to be irritable and religionist. Compulsorily she has to love cleanliness and be Greek, so that the baby should have a proper psycho-spiritual development [3].

#### GYNAECOLOGY – OBSTETRICS

As an authentic follower of the School of Methodicians he observed the evolutionary stages of normal or difficult pregnancy, but also the different positions of the foetus during pregnancy. With admirable patience he considered all parameters relating to the female anatomy [3]. During the gynaecological examination he applies the palpation, the percussion [3] and the digital rectal exam in inflammation of the uterus or the vagina [3]. Finally he manifested particular interest in the substantive treatment of new mothers and in thorough care of newborns during the first moments of their birth.

Conception failure was thought to be exclusively the negative result of inappropriate timing of sexual intercourse. Soranus believed that the best period for procreation was immediately after menstruation [3], because the body is not under the influence of toxic action caused by secretions, while hot baths and obesity were associated with infertility. He highly stressed the role of sufficient desire for contact, through which the conception is enhanced. Moreover he supported the existence of measure in human life and avoidance of excessive eating and drinking. Relying on careful observation he disputed many of the established ideas expressed by antecedent scientists: he demoted the standard assay using disinfection with smoke and vaginal suppositories which subsequently led to odour detection in women's breathing.

He was among the first supporters of midwifery golden chair, as he stated characteristically: «behind there should be a back so both the loins and hips may meet the resistance to any gradual slipping, for if they reclined even with a woman standing behind, by the crooked position they would hinder the movement of the foetus in a straight line.» [5]

#### PHARMACOLOGY

He was extensively involved in Pharmacology: he preferred simply and easily prepared drugs that respected the patient and his condition. For Soranus, an effective cure should include the cyclical treatment of chronic diseases, even the passive gymnastics.

#### PSYCHIATRY

Soranus was among the first doctors who conducted systematic classification of schizophrenia and recommended psychological treatments. In particular he suggested the effective approach to the psychological issues with mental training methods, such as the motivation for participation in philosophical discussions aiming at the "exorcism" of sadness and phobias. He had noticed the coexistence of manic and melancholic characteristics during the same incident (continuous wakefulness and insomnia with varying intensity of mood, anger, sometimes sadness or sense of futility). He also renounced the widespread use of practices dominated at those times, such as the keeping of enchained patients in the dark, bleeding and fasting. On the contrary, recognizing the crucial contribution of individual faith, he let his patients wear amulets.

## WORKS

Erudite Soranus bequeathed us a rich literary work that has survived mainly in Latin translations or subsequent writings (we have minimum of it in the original Greek text) and is related not only to purely medical issues, but also to current philosophical issues. Indeed his contribution to the history of medicine and etymological access to medical terms was remarkable.

Thoughtlessly he didn't accept the leading works of distinguished doctors (Hippocrates, Diocles, Asclepiads), but with praiseworthy objectivity he justified their expressed mistakes. However he avoided the emotional excesses; with admirable precision he composed a detailed biography of Hippocrates: "The Noble Origin and the Life of Hippocrates according to Soranus' Statements" («Ἱπποκράτους γένος καί βίος κατά Σωρανόν»). Soranus renewed the scientific findings of previous medical works presenting his own reasoned conclusions. In this way he managed to connect Menon ("Books of medical synagogues" - «Ίατρικῆς συναγωγῆς βίβλοι») and Alexander Philalethess ("Areskonta" – «Τά άρέσκοντα τοῖς ίατροῖς») with Galen.

## SORANUS' "GYNAECOLOGY"

Soranus of Ephesus became prominent in gynaecology, so he inspired the "Gynaecology" («Περί γυναικείων παθῶν»), the largest and the most comprehensive medical textbook of antiquity. In the voluminous and extremely intelligible treatise that is saved in the ancient Greek language Soranus' authority is revealed. It consists of four illustrated books:

First Book: "On the midwife" («Περί τῆς  $\mu\alpha(\alpha\varsigma)$ »): it refers to Soranus' views concerning the proper midwife; it is a detailed manual for the midwife, her training and duties, the female

physiology, the conception, the pregnancy and the childbirth as well.

Second Book: "Bringing to the birth – Infant's healthcare and diseases" («Ἀπότεξις – Ὑγιεινή καί νόσοι τοῦ βρέφους»): it deals with the birth, the infant, the infant's and new mother's care.

Third Book: "Are there same women's diseases" («Εί ἕστιν ἶδια πάθη γυναικῶν»): it is about the female reproductive system.

Fourth Book: "On the diseases subjected to surgeries and medicines" («Περί τῶν ὑπαγομένων χειρουργίας καί φαρμακίαις παθῶν»): the writer describes the gynaecological illnesses and also suggests the appropriate treatments or the most effective surgical operations. This book contains the first precise descriptions of forceps and embryotomy.

#### **OTHER WORKS**

In his notable works the scholars include the following ones:

"Lives, aspects and of physicians" («Βίοι ίατρῶν καί αἰρέσεις καί συντάγματα»): in ten books he presents prominent physicians and their basic theories;

"Introduction to the science of Medicine" («Είσαγωγή είς τήν ίατρικήν τέχνην»): it is an encyclopaedia of general medicine;

"Monograph on names (or etymologies) for human body and naming of every member and element" («Μονόβιβλον περί όνομασιῶν (ἤ έτυμολογιῶν) τοῦ σώματος τοῦ ἀνθρώπου καί όνομασίαι πάντων τῶν μελῶν καί τῶν στοιχείων»): an academic study about the nomenclature of physiology and anatomy;

"Pharmaceutical monograph" («Μονόβιβλος Φαρμακευτικός»): quoted by Galen; perhaps it was part of the "Instruction on the medicaments" («Περί Φαρμακείας»).

"Opthalmic" («Όφθαλμικός»): an opthalmologic book containing descriptions of eye diseases;

"On Bandages" («Περί ἐπιδέσμων»): a richly illustrated work with a detailed presentation of elaborate ways of bandaging various surgical interventions;

"On communities" («Περί κοινοτήτων»): in two books Soranus analyzes the thinking of the Methodic school about pathology of the diseases;

"On uterus and vagina" («Περί μήτρας καί γυναικείου αίδοίου»): he considers anatomy

and physiology of the female reproductive system;

"On reasons of illnesses" («Περί παθῶν αίτιῶν»): the principal reasons of diseases are examined intensively;

"On fevers" («Περί πυρετῶν»): it is a specialized work about fevers;

"On sign of fractures" («Περί σημείων καταγμάτων»): an authentic orthopaedic work saved in original Greek;

"On sperm and reproduction" («Περί σπέρματος καί ζωογονίας»): it is an inspired book on physiology of reproduction;

"On acute and chronic diseases" («Περί τῶν ὀξέων καί χρονίων παθῶν»): in three books saved in Latin and based on convictions of the Methodic physicians the researcher surveys chronic diseases;

"On the unnatural" («Περί τῶν παρά φύσιν»): a work about the birth of abnormal babies;

"Instruction on Medicaments" (« $\Pi$ ερί φαρμακείας»): consisted of four books this pharmacological manual divides the poisons and the ways of treatment;

"On soul" (« $\Pi\epsilon\rho$ í ψυχη̃ς»): under the obvious influence of sceptical philosopher Aenesidemus in four books Soranus deals with the concept of soul commenting on earlier opinions;

"Medical problems" («Προβλήματα ίατρικῆς»): presents the physicians' problems and gives guiding parameters for their moral handling;

"Hygiene" («Υγιεινόν»): provides advice about human health;

"Friend of medicine" («Φιλίατρος»): contains useful instructions for preparation of medicaments;

"Surgeries" («Χειρουργούμενα»): in this book that is commented by Caelius Aurelianus (Roman physician – 5<sup>th</sup> century AD) and translated into Latin by Muscio (5<sup>th</sup> century AD) Soranus examines characteristic cases of surgical operations.

#### CONCLUDING REMARKS

Undoubtedly Soranus of Ephesus was a leading gynaecologist of antiquity, as is evidenced by the universally acknowledged recognition of his value by great intellectual personalities and by the most flattering characterisation as «medicinae auctor nobilissimus» ("the noblest author of medicine"):

Galen, the prominent Greek physician, surgeon and philosopher (129 – 200 AD) praises him for his undiminished interest in physiology and he admires him unrestrainedly as he stands Soranus out from the rest Methodicians, which he harshly criticized;

In his work «De anima» ("On soul") Tertullian (155 – 240 AD) based in order to compose his titular book, as well as Sextus Empiricus (160 – 210 AD) in his distinct inspiration «Against the Mathematicians» ("Adversus Mathematicos");

Soranus was studied by important physicians, as Etuis of Amida (mid 5<sup>th</sup>-mid 6<sup>th</sup> century), Oribasius (320 – 403 AD), Paul of Aegina (625 – 690 AD) and ecclesiastical authors, as Augustinus of Hippo (354 – 430 AD); His gynaecological work "Gynaecology" brought catalytic influence on medical practice throughout the Roman period, but also ensured the steady appreciation of Arab doctors through Paul of Aegina. In fact the Medieval Latin translation of Muscio and its adaptations in European languages at the Late Renaissance demonstrate Soranus' unchangeable contribution in gynaecology, obstetrics and embryology.

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