

Letter to the Editor

SARS in Classical Greece? A glimpse in history

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Dear Editor,

Mystery in ancient Hellenic civilization represents a huge part of its history. Greek medico-philosophers tried through experience and in many occasions torturous observation to explain all about human physiology and medicine in its consummation. The Hippocratic School of Medicine marked the era by summarizing all available medical knowledge of the known world, as travel and medical review were among the fundamental methods to gain expertise. To propose a hypothesis that a case of a severe acute respiratory syndrome (SARS) was noted by Hippocrates and his followers is not far from possible. (Figure 1)

However, to add a virus from the family of Coronaviridae is something else. Nonetheless, some historical clues may allow such a narrative investigation. Coronaviruses were named after the Latin tern "corona" which means "crown", deriving from the ancient Greek verb "coroniao" (Greek: κορωνιάω) which describes the bending neck (flexion) movement, while "coronis" (Greek: κορωνίς) means the oval edge of something and in the case of humans the epicranium.¹ A single crown-like virion was directly visualized under the atomic force microscopy, specifying the family name.² There are still significant knowledge gaps in their epidemiology and transmission dynamics, while the spectrum of clinical features varies, presenting a heterogeneous cluster of symptoms, from mild to severe life threatening disease.

Since 2003 coronavirus SARS is identified, prompting a quest for novel types. The family was recognized in a diverse array in humans, domesticated animals and wildlife, especially in bat and bird species, which are believed to act as natural hosts. Bats were accused for the SARS-Cov-2 pandemic during 2019-2021. Recent molecular analyses demonstrated that coronaviruses are orders of magnitude older than previously suggested, exhibiting a past ancestor, common for all types of the family, who is likely far greater (millions of years) than it was believed.³

In ancient Greece the ceremonial religious sacrifice of cattle or sheep demanded the advent

of bats for them to drink the animal's blood before the believers' practise "spondi" (Greek: σπονδή, an act of pouring a liquid as a sacrifice, or drinkin it in frenzy or ecstasy).⁴



Figure 1: Hippocrates of Kos, Pieter Serwouters, Bonaventura Elzevier, Abraham Elzevier, 1628.

Is there the possibility for a "miasmatic" cattle blood, which was infected by a bat virus? Looks like a fade case, but on the other hand all is possible.

Inside Corpus Hippocraticum various viral induced infections of the lower respiratory tract were noted, like bronchiolitis and bronchitis, usually presenting with cough accompanied by gastrointestinal disorders. In the report of the

"cough of Perinthos", a winter epidemic presented by the Hippocratics, dry or productive cough, rich in sputum production could be combined with pleurodynia, severe respiratory distress, orthopnoea, gastrointestinal disorders, arthralgia, voice irregularities and high fever waves, usually ending with pneumonia. Furthermore, an uncommon angina was described, characterized by intense respiratory distress with acute breathlessness and the felling of choking with peculiar rapid progression. The infected could pass away within the first day, or soon enough after the pathology's outset, "the sore throat angina, when not exhibit any event neither to the neck, not to the throat, but cause severe choking and wheezing, cause death the same day or the third day".⁵

Speculating for a Hippocratic SARS we only present a hypothesis with no firm strong clues. Exactly the same thing they all do when they exam the mysteries of the Hellenic antiquity!

References

1. Liddell GH, Jones HS, Scott R. *A Greek-English lexicon*. Clarendon Press, Oxford, 2006.
2. Lin S, Lee CK, Kao CL, Lin CW, Wan AB, Hsu SM, Huang LS. Surface ultrastructure of SARS coronavirus revealed by atomic force microscopy. *Cell Microbiol* 2005;7(12): 1763-1770. doi: 10.1111/j.1462-5822.2005.00593.x
3. Wertheim JO, Chu DK, Peiris JS, Kosakovsky Pond SL, Poon LL. A case for the ancient origin of coronaviruses. *J Virol* 2013;87(12): 7039-7045. doi: 10.1128/JVI.03273-12
4. Aristophanes. *Birds*. Henry Francis Cary (trans.). Taylor and Hessey, London, 1824.
5. Hippocrates. *Coa praesagia, vol. 5 & De morbis popularibus & De fistulis & De humidorum usu & De ulceribus & De medico, ed. É. Littré, Oeuvres Complètes d'Hippocrate, vol. 6*. Baillièere, Paris, 1846-1849.