The Origin of the Arabic Medical Term for Cancer

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Abstract: The objective of this research is to trace the origin of the word cancer from its origin to its translation in Arabic medical literature, its meaning and connotations, using a variety of research materials, including journals, books and manuscripts. The word cancer traces its origin to Hippocrates, using the word crab as a description for the disease. This article meticulously traces the route this description took to the coinage of the word cancer in Arabic by Ishaq ibn Hunayn (ibn Hunayn), providing references and sources.

Key words: Cancer • Etymology • Hippocrates • Al Kindi • Ishaq ibn Hunayn • Greek • Arabic

INTRODUCTION

Language is a fascinating concept, the interaction of independent consciousness and the sharing of neuronal action potential pathways for mutualistic benefit. The word cancer has such frightening and overwhelming connotations in our everyday life. As such the intention of this research is to discover the origin of this word and trace each step in how it came to mean what it does today in the Arabic Language. Unlike many imported words from alphabet languages (such as those of Proto-Indo-European origin) compared to abjad languages [1], the word cancer kept its original meaning and thus the connotations associated with it. Connotations which change the way the disease is interpreted and by understanding this patient information can be better conveyed to address concerns and fears.

The Hans Wehr Dictionary of Modern Written Arabic Fourth Edition, describes the entry of the word cancer from the root word -سرطان- meaning, “to grab/to swallow” and from this root word comes the word -سرطان- meaning crawfish, crab or lobster, also referring to the medical disease and the zodiac sign [2]. From here the direct translation from the Greek – carcinos – also meaning crawfish, crab or lobster is obvious, showing shared origin and meaning explained in the results.

The aim of this article and research was to determine and record each stage of the medical origin of the Arabic word in one place and provide a comprehensive origin of its etymology and discuss whether this may have a clinical impact.

MATERIALS AND METHODS

This article is the culmination of information from a variety of research materials, including journals, books and manuscripts. After reading the accreditation of the medical use of cancer to Hippocrates from Charlton T. Lewis and Charles Short (1879) A Latin Dictionary [3], this provided a starting point to locate Hippocrates’ first use of the word. Reading and searching the complete translation of Hippocrates’ works by Francis Adams provided by MIT [4] allowed me to find the point Hippocrates describes cancer using the word crab. This was validated by cross referencing this line with the original Greek manuscript provided by The Perseus Digital Library [5].

With this knowledge, The New World Encyclopaedia [6] and the website for Islamic Medical Manuscripts from the National Library of Medicine, [7] stated how Al Kindi and ibn Hunayn were the first to translate Hippocrates’ work and that ibn Hunayn was the first to translate Aphorisms, the book in which the first description of the
word cancer in its medical form occurs. The book where I obtained the original version, Liber Aphorismorum [8] is Latin version of ibn Hunayn’s translation written in 1509, crediting ibn Hunayn’s book to 857/8 CE. Other manuscripts from the website for Islamic Medical Manuscripts from the National Library of Medicine allowed me to view the occurrence of the Arabic word in older compared to later manuscripts by Ibn Sina.

RESULTS AND DISCUSSION

Etymology of Cancer and Origins of the Greek Form:

Modern etymologists trace the origin of the medical word cancer to the father of Hellenic Medicine, Hippocrates [9]. Among other medical advancements for his time, Hippocrates first defined cancer as an independent group of diseases, describing the hallmarks of angiogenesis and metastasis as part of the definition. The first recording of the use of the word cancer was in reference to palliative care, where he mentions surgical removal in some people may have disproportionate advantages compared to the disadvantages. His writings are also the first recorded instance of the relationship between early diagnosis and better prognosis, as well as ethical issues such as patient self-determination in regard to treatment [10].

The word cancer as we understand it today, in its medical context, traces its routes to its original description by Hippocrates; literally meaning “crab.” It is popularly understood by linguistic historians that this was in reference to either the claw-like projections of malignant tumours, or the more popular opinion that the dilation of local veins and lymph vessels are what the word “crab” is referring to. This is because there is no written evidence of which Hippocrates actually meant [11].

The first recorded instance of the Greek word for crab, referring to cancer, “carcinos” is in the circa 400BCE text, Aphorisms by Hippocrates, section 6 line 38[12]. The name “Aphorism” also of Greek origin meaning “Definitions.” This book is a collection of short statements or principles on medical practise. Many of which are exceptions to general rules. This is important to a point described later on.

The original text is as follows:

“It is better not to apply any treatment in cases of occult cancer: for, if treated, the patients die quickly; but if not treated, they hold out for a long time.” [13]

A previous book, “the book of ulcers,” also credited to circa. 400BCE states in section 1, states the method of surgical removal of abnormal tissue [14]. The statement involving the first recorded use of the word cancer in aphorisms is, as previously explained, an exception to this general principle. As such this aphorism explicitly shows the coinage of this new term “cancer” referring to the malignant disease.”

Hippocratic Translations into Arabic: The works of Hippocrates were first translated into Arabic by the renowned translator, Abu Yusuf Al Kindi. An accomplished polymath in his own right, Al Kindi played a pivotal role in the preservation of ancient texts from Greek and the Romance Languages to South Asian and Oriental Languages. Al Kindi was the first to devise mathematical calculations and spatial analysis in relation to the potency and efficacy of drugs [15].

However, although Al Kindi translated many of Hippocrates’ work, his reference to cancer uses Arabic phrases referring to mass, lump or inflammation. A contemporary of Al Kindi, ibn Hunayn, wrote the first written Arabic version of aphorisms in which he clearly translated the Greek carcinos to the Arabic also in section 6 line 38. As a Greek speaker himself and by his own medical expertise, it can be assumed that ibn Hunayn knowingly translated the Greek word to Arabic based on the observations of Hippocrates and the original coinage of the term. As previously mentioned, the Greek and Arabic forms have the same meaning, crab or claw.

It is not known the exact date of the translation but it is understood to have been sometime between 857/8 CE [17]. As a result of Galen popularising the word cancer, many other manuscripts of this period include the word for cancer. Although Galen’s use of the word carcinos may have been translated around the same time Aphorisms, it is my understanding that as the word originates from Aphorisms by Hippocrates, it is through his description that the word reached its medical form and is this translation by which the medical form entered the Arabic language.

As Islamic scholars contributed and studied cancer, the word سرطان greatly increased in popularity and became firmly established by the time of Ibn Sina (980-1037), regarding cancer, the Canon of Medicine uses the term repeatedly when stating the name of the disease and its treatment, not just as a description of the disease [18].
CONCLUSION

This research has highlighted to me the importance the likes of Al Kindi and ibn Hunayn held to the preservation of knowledge from antiquity. In this particular instance, without these Islamic academics, the works of Hippocrates and Galen would be lost and we may have a completely different medical term for cancer. It was the preservation of knowledge that allowed modern medicine to progress upon a safeguarded, broad foundation during the Renaissance Latin revival.

The evolution of language has a profound impact on patient understanding of a disease, as in the case of its derivation from the word meaning to grab or claw portrays a particular devastating image in a patient’s mind, based on the word alone. With this knowledge, medical professionals will be able to better address patients’ fears, especially with the more benign and better prognostic cancers. Since, although these are still called cancers, they do not bear resemblance to the word that is used to describe them. Ibn Hunayn’s decision to directly translate carcinos to – affects Arabic speakers as they understand the root, however, affects Greek speakers to a lesser extent. Because if for example a patient is being diagnosed with leukaemia, a Greek/alphabet speaker would just understand that one word, whereas an Arabic/abjad speaker would understand – “grabbing/claw like malignancy of the blood.”

As an Arabic speaker, through experience the abjad categorisation of Arabic, compared to the alphabet categorisation of English means that the relation of words to their root words conveys far more description that standalone English words. It is for this reason I believe research such as this is far more important in the Arabic speaking world, to ensure that patients do not have misconceptions about their disease and this results in an improved quality of life.

ACKNOWLEDGEMENT

Professor Dr Wahid M. Ahmed for his guidance and supervision
Barts Hospital Archives

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