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How to write a case report: lessons from 1600 B.C.

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"The past is a foreign country; they do things differently there." So opined LP Hartley. Nowhere is this aphorism more appropriate than in medicine. Do we really know what physicians meant when they talked about disease before thermometers, stethoscopes, or sphygmomanometers were invented? Is it true that Mozart died of renal failure? There is a good description that on his deathbed he was lying flat in bed but completely swollen up. This may be the only solid piece of evidence on which to build a diagnosis, but the medical speculations are as wide-ranging as they are fanciful, and modern and old suggestions vary from rheumatic fever and bacterial endocarditis to Henoch-Schönlein purpura to renal tuberculosis.[1] Did Beethoven die of lead poisoning? Well, there was an excess amount of lead in eight strands of his hair. The hair was purchased at an auction at Sotheby's of London by two American Beethoven Society enthusiasts, one with the delightfully subversive (pseudo?)name of Che Guevara and the other called Ira Brilliant (http://www2.sjsu.edu/depts/beethoven/hair/hair.html). The level of lead was very high; but could it cause deafness? A quick survey of the literature was inconclusive. But other Beethoven enthusiasts put their money on Paget's disease of bone on the basis of the portraits — many of which were painted after Beethoven's death! There are other mysteries even closer to our time. Why was acute renal failure not discovered until the crush injuries of the Second World War during the Blitz in London? One would think that anuria is a sufficiently dramatic sign to have attracted a great clinician's attention. How come we cannot interpret the sayings and doings of physicians so close to us in time? Has medicine changed so much that older descriptions of diseases are already incomprehensible?

These ruminations were on my mind one pleasant Sunday afternoon as I sauntered over to the Metropolitan Museum of Art in New York to look at a new exhibition on medicine in Egyptian antiquity. The centerpiece of this delightfully small exhibition is the Edwin Smith papyrus, with the pages newly restored, remounted, and translated. This celebrated text, beautifully written in black and red ink, dates from the 18th dynasty, circa 1600 B.C., though scholars think that much of the information is based on more ancient sources.[2] A beautiful catalogue accompanies this exhibition and presents the complete translation of the 18 pages of text (Figure 1).[3]

Figure 1

The papyrus, obviously part of a textbook of surgery, lists a number of cases. The amazing findings of this marvelous text are the ease with which a modern physician can readily understand what is being said and agree with the diagnosis and prognosis. One of the cases (see box) reads as follows:

The comparison with the Mozart case reports is striking. But I think the problems lie more with the differences between medicine and surgery than with the differences between ancient and modern. Humans have an intuitive sense of biology and medicine. There is now a consensus among

Qais Al-Awqati[1]
Editor
[1]**Correspondence:**
Qais Al-Awqati, Departments of Medicine and Physiology & Cellular Biophysics, Columbia University, 630 W. 168th Street, New York, New York 10032, USA.
E-mail: qa1@columbia.edu

Case 22 Fracture of the Temporal Bone
Title Practices for a fracture in his temple

Examination and Prognosis
If you treat a man for a fracture in his temple, you have to put your finger on his chin and your finger on the end of his ramus. Blood will fall from his nostrils and the interior of his ears from that fracture. Wipe for him with a plug of cloth until you see its chips inside his ears. If you have called to him and he is dazed and does not speak, then you say about him, "One who has a fracture in his temple, who bleeds from his nostrils and his ears, is dazed and suffers stiffness in his neck: an ailment for which nothing is done."

Explanations
As for "the end of the ramus," it is the end of his jawbone. The ramus ends in his temple, like the claw of a plover taking hold of something. As for "you see its chips inside the ears," it means that chips of bone keep coming to adhere to the plug inserted to wipe his ears. As for "he is dazed," it means that he is continually still and in depression, without speaking, like one who has paralysis, because of something that will has entered from outside.

anthropologists that most 'primitive' humans classify animals, plants, and minerals in a manner that closely resembles our own scientific classification. Ancient Sumerian, Egyptian, and, later, Greek scientists were able to write a systematic analysis of biological phenomena that was based on keen observation and logical deduction. Aristotle's most successful and lasting contributions have been his insights into biology. His conclusions remain astonishing to this day; for instance, his conclusion that dolphins are mammals is a remarkable achievement. But I think that surgical science has pride of place when it comes to our ability to discover how astute ancient clinicians were. It is likely that the treatment of trauma was the reason for the development of surgery as a science. With its accompanying urgency, trauma surgery focused the mind and, necessity being the mother of experimentation, probably forced ancient surgeons to develop an analytic manner of diagnosing and treating wounds. The results of the treatments would be apparent rather quickly, allowing clinicians to categorize effectiveness and to develop a kind of outcome analysis that could be codified. The evidence can be seen in Case 22 to the left; the conclusions remain correct to this day. Very little in terms of analysis of the hidden life of the organism is needed. One did not have to know the core body temperature, blood pressure, kidney function, or whatever to make a prognosis On the other hand, medical illnesses, with their long durations and unpredictable waxing and waning courses, provided an irresistible invitation to supernatural explanation. Dealing with idiopathic etiologies has been the lot of physicians over the millennia. But, for these diseases, supplanting supernatural etiology with statistical association should not be confused with an advance in science; rather, it is merely an advance in self-knowledge. Skeptics may be forgiven for their nostalgia for the poetic interpretation that myth afforded ancient physicians to explain obscure etiology, as modern ones only gained an arid terminology with equally obscure content. That we still publish in this journal articles that aim to decipher the most important risk factors and prognostic indicators for many diseases should provide a humbling insight into how much still needs to be learned.

The aesthetic value of this papyrus is beyond doubt. But there is also something to learn from the ancient physicians and surgeons of Egypt: a method to organize our thinking when we write informative and interesting case reports. We started a feature in *Kidney International* called The Renal Consult. We have been gratified by the response of our readers to these extended case reports. What we can learn from the Edwin Smith papyrus is that it is possible to present a description of a modern case report in a coherent manner by giving first a clinical description followed by anatomic (or physiological) diagnosis, prognosis, and then some discussion. This is the format we have preferred, and it is nice to see that it has the weight of history behind it.

1. Robbins-Landon, HC. *1791: Mozart's Last Year*. Schirmer Books: New York, 1992, 148–189.
2. Breasted, JH. *The Edwin Smith Surgical Papyrus*, 2 vols. University of Chicago Press: Chicago, 1980.
3. Allen, JP. *The Art of Medicine in Ancient Egypt*, Metropolitan Museum of Art: New York/Yale University Press: New Haven, London, 2005.