Short communication

Corpus Hippocraticum: historical source of treatment of craniomaxillofacial trauma

P. Stathopoulos *

Oral and Maxillofacial Surgeon, Department of Oral and Maxillofacial Surgery, Royal Derby Hospital, UK

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Abstract

The works of Hippocrates known in the Western World as the Corpus Hippocraticum have dominated medical thought and surgical practice for centuries. A substantial part of the Hippocratic Collection is dedicated to the description of injuries pertinent to Cranio-maxillofacial surgery and their management. Hippocrates has reached this level of surgical skill despite the limited pre-recorded knowledge and the restriction of post-mortem dissections.

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I have examined the Corpus Hippocraticum in detail and come to the conclusion that Hippocrates not only provided scientific evidence of his knowledge of the anatomy of the structures of the face but also set the foundations for the management of maxillofacial injuries (Fig. 1). His works, observations and therapeutic methods freed medicine from religious influence and superstition, and rationalised the “art” of medicine, as his conclusions were clearly based on research and accumulated knowledge. What is not widely known is that he wrote detailed descriptions of the anatomy of the face, signs of facial injuries, their classification, and methods of management, that are astonishing and are still in use today.

The Corpus contains textbooks, lectures, research, notes, and philosophical essays on various subjects in medicine.1 His surgical treatises were divided into On fractures, On the articulations, On Injuries of the head, Surgery, and Mochilicon (Instruments of leverage).2,3

In the treatise “On the Articulations” (chapters 30-31) he provided a detailed description of the unilateral and bilateral dislocation of the temporomandibular joint and described the reduction of the jaw, which is now known as the classic “Hippocratic manoeuvre”.4 Although this treatment was initially described in the Edwin Smith papyrus by Egyptian physicians around 1500 BC, Hippocrates seems to have been the first to advise the use of a wire around the teeth for the immobilisation of a fractured mandible.5 In chapters 32-34 he classified mandibular fractures into incomplete (greenstick) and complete, displaced and non-displaced, symphyseal, and angular. He then described reduction and immobilisation with a bridle wire made of gold, and he referred particularly to the time after intervention (patients should rest, take a soft diet, and avoid impact to the jaw). He thought that consolidation should occur at around day 20 if there was no inflammation.

In chapters 35 and 36 Hippocrates advised physicians not to use complex and heavy bandages for the management of

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* Correspondence to: 16 Whitehaven Grove, Derby, De73 6ne, UK. E-mail address: pan_stath@yahoo.gr
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uncomplicated injuries to the bones of the nose. His choice of dressing was two-month-old wheat flour mixed with water, which formed a glutinous mass that could be used in cases of contusion of the soft tissue and less serious injuries to bone.6

Nasal fractures were divided into those of the lower cartilage and those of the bony part (usually athletic injuries) (Fig. 2). He clearly described the reduction of the fracture and the insertion of packing to support the structure of the nose. In lateral distortion of the tip he used a rolled-up rag made of sheep’s lung and discouraged other physicians from using a sponge because it would retain liquid.6 He emphasised that, if a patient had difficulty breathing, the bone should be reduced using finger pressure, and a thick spatula inside the nostrils would be necessary if the fracture involved the higher part of the nasal pyramid (chapters 37 and 38).1 He stated that... (he had) never seen a nose fractured in this way which has not been corrected.

The works of Hippocrates have dominated medical thought and surgical practice for centuries in the Western world. His influence is obvious from the writings of Celsus and Galen in the Roman period to the works of Ambroise Pare and Andreas Vesalius in the sixteenth century. A substantial part of the Hippocratic collection is dedicated to craniomaxillofacial injury and its management. It is remarkable that trepanation was described extensively in the treatise *On the injuries of the head*,1 together with its clinical indications, operative technique, and outcomes,7–9 and that Hippocrates reached this level of surgical skill despite limited recorded knowledge and the restriction of dissections post mortem.

**Conflict of interest**

I have no conflicts of interest.

**Ethics statement/confirmation of patients’ permission**

Not applicable.

**References**