## HERE AND THERE

## AUSCULTATION BEFORE LAENNEC

Professor Max Neuburger, writing of the Ebers Papyrus, dated about 1500 B.C. and thought to be the oldest example of medical literature in existence, stated –

'The most interesting point, however, is, as would appear from the Ebers papyrus, that acoustic phenomena were not neglected, for it is difficult to interpret otherwise than in the light of auscultation the sentence, "The ear hears".' (Vol. 1, p. 26.)

He also records that the ancient medical writings of the Hindus contain references to auscultation –

'By hearing he will distinguish the state of the lungs, by the peculiar noise of breathing.'
'With the ear attention was paid to the alterations in the voice, to the sound of the breathing, cracking of the joints, crepitation of broken bones, rumbling of the bowels.' (Vol. 1, p. 50.)

Max Neuburger: History of Medicine, Translated by Ernest Playfair, London, 2 vols, 1910, Oxford University Press.

The Corpus Hippocraticum contains the most well-known early references to auscultation. The somewhat shadowy figure whose name is given to this classic collection of medical and surgical writings is thought to have lived around 460-375 B.C.

'Those with empyema who, when shaken by the shoulders, make a lot of noise have less pus than those who make but little and who have more difficulty in breathing and a higher colour. Those who make no noise at all and have severe dyspnoea and livid nails, are full of pus and in fatal case.'

The Medical Works of Hippocrates. A new translation from the original Greek made especially for English readers by the collaboration of John Chadwick and W. N. Mann, Oxford, 1950, Coan Prognosis, p. 254, No. 424, Blackwell Scientific Publications.

'... quand le poumon tombe contre le côté, le malade a toux et orthopnée; l'expectoration est incolore; de la douleur se fait sentir à la poitrine et au dos; le poumon pousse, appuyant sur le côté; il semble au malade qu'il a un poids dans la poitrine; des douleurs aiguës le piquent; un bruit comme de cuir se fait entendre, et la respiration s'arrête.'

Oeuvres Complètes d'Hippocrate. Traduction nouvelle avec la texte grec en regard. Par Emil Littré, Paris, 10 vols, 1839-61, Des Maladies, vol. 7, p. 95, No. 61, J. B. Baillière.

Caelius Aurelianus, c. 500 B.C., wrote three books on acute diseases and five on chronic diseases. His writings on pleurisy include the following –

"... If the disease grows worse, all the symptoms become more pronounced. There are, in addition, the following symptoms: limbs cold and numb... pulse thick, rapid, and strong, but somewhat uneven and indicating the distress by its beat; rapid and weak breathing accompanied by pain all around; dewy perspiration of face and chest; mental aberration; a wheezing sound in the throat, or a resonant or hissing sound within, on the side affected; ...

Caelius Aurelianus; On Acute Diseases and on Chronic Diseases. Edited and Translated by I. E. Drabkin. Chicago, 1950, Acute Diseases, Book 2, Chapter 14, p. 185, University of Chicago Press.

Caelius Aurelianus also left descriptions of stridor in pneumonia, hydrophobia, tetanus, phthisis, and asthma,

The works of the great French military surgeon Ambroise Paré, 1510-90, contain a "Table Méthodique pour Cognoistre les Maladies par les Cing Sens". We read -

'Si'il a de la bouë, ou autre humeur contenue au thorax, on oit un son comme d'une bouteille à demy pleine qui gourgouille.'

Oeuvres Complètes d'Ambroise Paré... par J. F. Malgaigne, Paris, 3 vols, 1840-41, vol. 1, p. 93, J. B. Baillière.

## In William Harvey's De Motu Cordis we find the following -

'And indeed every one may see, when a horse drinks, that the water is drawn in and transmitted to the stomach at each movement of the throat, the motion being accompanied with a sound, and yielding a pulse both to the ear and the touch; in the same way it is with each motion of the heart, when there is the delivery of a quantity of blood from the veins to the arteries, that a pulse takes place, and can be heard within the chest.'

The Works of William Harvey. Translated from the Latin . . . by Robert Willis, London, 1847, De Molu Cordis, Chapter 5, p. 32, Sydenham Society.

Aemilius Parisanus, Harvey's Venetian opponent, did not believe in this sound, and wrote, 'tantummodo Londini exauditur.'

Christopher Bennet, 1617-55, in his work on consumption, first published in 1654, referred to -

'The Sign of a Phthisis from a thick and cold Rheum falling from the Head (which sometimes happens) and collecting in the Breast, is apparent . . . a most certain Symptom whereof is an Erection or Aperture of the Larynx, with its alternate closure or falling again, and causing a Sound like the ticking of a Watch that beats Seconds; and to which daily are joined the following . . .'

Theatrum Tabidorum: Or, The Nature and Cure of Consumption etc., London, 1720, p. 149-50, Printed for W. and J. Innys . . . and J. Osborn.

Robert Hooke, pioneer microscopist and Curator to the Royal Society, plainly envisaged the use of some extra-aural assistance when he wrote

'There may also be the possibility of discovering the Internal Motions and Actions of Bodies by the sound they make . . . the stopping of the Lungs is easily discovered by the wheezing . . . and so to their Motions becoming sensible, they require . . . that the Organ be made more nice and powerful to sensate . . . there may be Helps found, some of which I may . . . make trial of?'

From Tuberculosis. (Clio Medica) by Gerald B. Webb, New York, 1936, p. 124, Paul B. Hoeber.

Gerhard L. B. van Swieten, 1700-72, was one of several pupils of Hermann Boerhaave who themselves became famous teachers. He left Leyden for Vienna where he became physician to the Empress Maria Theresa, and founded the Old Vienna Medical School. The following is from his description of the 'peripneumony'

Generally there is also at the same time a disagreable rattling in the breast, which arises from a collision of the air against the mucus here collected or else from the dried vesicles of the lungs rattling like dry parchment, when they are expanded by inspiration. Hippocrates seems to point out something of this kind in treating of an adhesion of the lungs to the side, where he enumerates such symptoms as very well agree to a peripneumony, and afterwards adds, Sanguis velut corium stridet, & respirationem prohibet, "that the blood rattles like leather or parchment, and obstructs the respiration"...?

From The Commentaries upon the Aphorisms of Dr. Hermann Boerhaave . . . By Gerard van Swieten. Translated into English, London, 14 vols, 1744-65, vol. 8, sect. 826, p. 241-42, Printed for John and Paul Knapton at the Crown in Ludgate-Street.

Giovanni Battista Morgagni, 1682–1771, published at the age of 79 his collection of nearly 700 case-histories with necropsy records. His famous *De Sedibus et Causis Morborum etc.*, *Venice*, 1761, was published in the form of 70 letters, one of which contains the history of –

'A woman of five-and-twenty years of age, . . . had come into the same hospital at the same time when she began to be affected with a difficulty of breathing. With this difficulty were join'd a pain in the left part of the thorax, a certain sound of matter within this cavity at the time of respiration, and a pulse which was soft indeed, but very frequent.'

From The Seats and Causes of Diseases Investigated by Anatomy . . . Translated from the Latin . . . By Benjamin Alexander, London, 3 vols., 1769, vol. 3, art. 10, p. 5. Printed for A. Millar, T. Cadell, and Johnson and Payne, in Pater-noster Row.

Freiherr Joseph von Quarin, personal physician to the Emperor Joseph II of Austria, writing on the same subject in 1774, described crepitation -

'C'est encore un signe fâcheux lorsque la toux est sèche, la poitrine brûlante, et qu'on y en'end un bruit fatiguant, une espèce de crépitation que produisent à raison de leur aridité, les vésicules pulmonaires dans l'extension et le gouflement qu'elle éprouvent à chaque inspiration. Le bruissement de l'air retenu dans les poumons obstrués de toute par d'abondantes mucosités qui les engouent, est encore un symptome dangereux.'

Traité des Fièvres et des Inflammations de Joseph Quarin. Ouvrage traduit du latin par J. B. Emonnot, Paris, 2 vols., 1800, vol. 2, p. 155, Logerot-Peliet.

The London Medical Gazette of November 10, 1832 (vol. 11, p. 189) makes merry at the expense of a certain Doctor François Joseph Double, and refers to a recent memoir by the Frenchman to the Academy of Sciences, in which he described how, one day, during his youth, he was taking leave of his mother, and while sobbing on her bosom was struck by the plainness with which he heard her heart-beats. The second volume of a work published by Double shows that he regularly practised immediate auscultation, and devotes several pages to auscultatory sounds.

'Pour bien apprécier le bruit que les malades font en respirant, et pour le saisir trèsclairement, même lorsqu'il semblerait d'abord ne pas exister, il faut approcher exactement l'une des deux oreilles contre la paroi thoracique et un parcourir ainsi tous les points et toutes les faces. Non-seulement on distingue fort bien ainsi la nature et l'intensité du bruit qui a lieu, mais on en fixe assez précisément le siège. J'ai retiré souvent de grands avantages de ce mode d'exploration de la respiration qui m'est propre, et auquel j'ai été naturellement conduit par le même mode d'exploration appliqué aux battemens du coeur, dont je fais aussi chaque jour de très utiles applications cliniques.'

F. J. Double: Séméiologie Générale, ou Traité des Signes et de leur valeur dans les maladies, Paris, 2 vols., 1811–17, vol. 2, p. 31, Croullebois.

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