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The Historical Evidence

1768 and all that.¹

The Impact of William Heberden

This chapter examines in a historical context the hypothesis that with exceedingly rare exceptions angina pectoris began to afflict patients only in the middle of the eighteenth century, after which its emergence was followed by a rapid increase in incidence, i.e. it had *not* been a symptom prevalent earlier but unrecognized.

An enquiry into the history of angina pectoris can do no better than begin with William Heberden's verbal but landmark description of 1768.² This was a time during which the ideas of the Enlightenment were spreading throughout Western Europe but the *anciens régimes* still managed to maintain their power: the French Revolution was nearly a quarter of a century away. Great Britain had just been victorious in the Seven Years' War and was about to obtain control of India. She ruled over the entire eastern seaboard of North America, Canada having been won and the American colonies not yet lost.³ George III was on the throne and had yet to suffer his first bout of insanity.⁴ The rural landscape was being transformed as enclosed fields replaced open scattered strips⁵ and the urban scene was changing beyond recognition with the early stages of the Industrial Revolution.⁶ Medical thought had become liberated from its former blind adherence to Galenic concepts and the four humours were no longer providing explanations for causation of disease. Instead, debate was raging between advocates of mechanistic theories of disease and those who considered disorders of the "anima" more significant.⁷ Giovanni Battista Morgagni had recently expanded the scope of clinical-anatomical correlations with his 500 cases, usually followed to death and autopsy.⁸ Daniel Gabriel Fahrenheit had developed a calibrated mercury thermometer and Herman Boerhaave applied it to the first instrumental assessment of illness at the bedside.⁹ Leopold Auenbrugger had just widened the scope of physical examination by adding percussion to inspection

¹ With acknowledgments to W C Sellar and R J Yeatman, *1066 and all that*, London, Methuen, 1930.

² William Heberden, 'Some account of a disorder in the breast', *Med Trans Coll Physns*, London, 1772, 2: 59–67, pp. 59–60, 63.

³ Frank O'Gorman, *The long eighteenth century: British political and social history 1688–1832*, London, Arnold, 1997, p. 183.

⁴ *Ibid.*, p. 205.

⁵ *Ibid.*, p. 330.

⁶ *Ibid.*, pp. 113–15.

⁷ Roy Porter, *The greatest benefit to mankind: a medical history of humanity from antiquity to the present*, London, HarperCollins, 1997, pp. 246–7.

⁸ Giovanni Battista Morgagni, *The seats and causes of diseases*, vols. I–III, transl. B Alexander, London, A Miller and T Cadell, 1769.

⁹ Porter, *op. cit.*, note 7 above, p. 344.

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and palpation.¹⁰ In England the surgeons had recently become divorced from the barbers. The medical supremacy of Oxford and Cambridge was being challenged by physicians graduating from Edinburgh or Continental medical schools. John Hunter was transforming experimental medicine and surgery,¹¹ his brother William transforming obstetrics.¹² The management of heart disease was about to be advanced by introduction of the leaf of the foxglove for treating cardiac failure.¹³

Heberden first publicly described the symptoms of angina pectoris on 21 July 1768, in a presentation to the Royal College of Physicians of London, it being the first time that the term had ever been used. His description of the most salient features of the pain warrants reproduction *verbatim* as it appeared in 1772 when published in the *Transactions* of the Royal College of Physicians of London under the title of 'Some account of a disorder of the breast'.¹⁴

There is a disorder of the breast marked with strong and peculiar symptoms, considerable for the kind of danger belonging to it, and not extremely rare, which deserves to be mentioned more at length and of which I do not recollect any mention among medical authors. The seat of it, and sense of strangling, and anxiety with which it is attended, may make it not improperly be called Angina pectoris.

Those who are afflicted with it are seized, while they are walking and more particularly when they walk soon after eating with a painful and most disagreeable sensation in the breast, which seems as if it would take their life away if it were to increase or to continue; the moment they stand still, all this uneasiness vanishes. In all other respects, the patients are, at the beginning of this disorder perfectly well, and in particular have no shortness of breath, from which it is totally different.

After it has continued for some months, it will not cease so instantaneously upon standing still; and it will come on not only when the persons are walking, but when they are lying down and oblige them to rise up out of their beds every night for many months together; and in one or two very inveterate cases it has been brought on by the motion of a horse, or a carriage, and even by swallowing, coughing, going to stool or speaking, or any disturbance of mind.

The os sterni is usually pointed to as the seat of this malady, but it seems sometimes as if it was under the lower part of it, and at other times under the middle or upper part, but always inclining more to the left side, and sometimes there is joined with it a pain about the middle of the left arm.

In the *Commentaries* written subsequently and published some thirty years later, Heberden added some variants of the location of the pain, its natural history and some associated symptoms. These too warrant reproducing in his own words.¹⁵

The pain sometimes reaches to the right arm, as well as to the left, and even down to the hands, but this is uncommon: in a very few instances the arm has at the same time been

¹⁰ *Ibid.*, p. 256.

¹¹ *Ibid.*, p. 280.

¹² *Ibid.*, p. 291.

¹³ William Withering, *An account of the foxglove, and some of its medical uses: with practical remarks on dropsy, and other diseases*, Birmingham, M Swinney, 1785, pp. 2, 6, 11.

¹⁴ Heberden, *op. cit.*, note 2 above, pp. 59–64.

¹⁵ W Heberden, *Commentaries on the history and cure of diseases*, Boston, Wells and Lilly, 1818, pp. 293–4.

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numb and swelled. In one or two persons the pain has lasted some hours, or even days; but this has happened, when the complaint has been long lasting and thoroughly rooted in the constitution.

The descriptions are, of course, a composite based on nearly a hundred patients, but the individual case histories, many of which are now in the archives of the Royal College of Physicians of London, described the individual features which now clearly identify the presenting pain as anginal.¹⁶ Although Heberden was initially unaware of any association with coronary arterial disease, his description of angina pectoris with its wealth of detail has never been bettered. It includes a clear-cut account of the distribution of the pain and its relation to exertion, other aggravating and some relieving factors, associated symptoms, and, in addition, the sense of impending dissolution or *angor animi*, and the natural history of the condition. William Heberden was one of the most learned physicians of his day and by 1768 a Fellow of the Royal College of Physicians of London of more than thirty years standing.¹⁷ He had been chosen to give the Royal College Harveian oration and was a Gulstonian and Croonian lecturer. He was acquainted with the recent works of physicians on the Continent of Europe and was a classicist with a sound knowledge of Hebrew, Greek and Latin.¹⁸ He was medically well read, yet even when his *Commentaries* were being written he had become acquainted with but one possible account, a two thousand year earlier observation by Erasistratus of Chios of a symptom complex that might conceivably be understood as being anginal. In his *Commentaries*, Heberden continued to describe angina pectoris as a condition which, “hitherto hardly had a place . . . in medical books”, the description of Erasistratus being the *only* earlier one to which he did make reference.¹⁹ In 1772 he apparently knew of but one other physician who had seen any similar patients. John Fothergill, a prominent contemporary physician with wide general interests, writing in 1776, referred to angina pectoris specifically as, “the disease of that kind which is so fully and judiciously described by Dr. Heberden”. Fothergill too was apparently unaware of any earlier descriptions.²⁰

The Earlier Years

The enquiry will continue with a review of the clinical records prior to 1768 that have been considered by some medical historians to be possible descriptions of the pain of angina pectoris, whether typical or otherwise. The first phrase that is relevant to the present investigation is that of Erasistratus. It has come down to us through

¹⁶ W Heberden, case notes, *Index historiae morborum*, Royal College of Physicians of London, manuscript 342.

¹⁷ Ernest Heberden, *William Heberden: physician of the age of reason*, London, Royal Society of Medicine Services, 1989, p. 13.

¹⁸ *Ibid.*, pp. 167, 111.

¹⁹ Heberden, *op. cit.*, note 15 above, p. 297, fn.

²⁰ John Fothergill, ‘Case of an angina pectoris with remarks’, *Medical Observations and Inquiries*, 1776, 5: 233–51, p. 235.