

The Contemporaries of William Heberden

William Heberden's 1768 presentation was followed very closely by reports from the quills of many contemporary English physicians who, either retrospectively or prospectively, diagnosed from among their patients some who were suffering from angina pectoris. Dr John Wall of Worcester, for example, reported seeing no fewer than twelve or thirteen such patients.⁶¹ By 1776 Fothergill was referring to angina pectoris as "a disease which I had too often met with".⁶² Individual cases such as one reported by Edward Jenner of vaccination fame contributed to the total.⁶³ As remarked by Latham a century later, angina pectoris is "an assemblage of symptoms . . . made to bear the name of a disease".⁶⁴ It is therefore necessary to examine critically all late-eighteenth-century clinical descriptions, as it was upon these alone that the diagnosis could be based and the extent estimated. Heberden himself pointed out the need to distinguish angina pectoris from other types of chest pain that were different in character and benign in their course.⁶⁵ This differentiation can be difficult even today when the purely descriptive term "chest wall pain" is *faute de mieux* used as a diagnosis. The diagnostic problem was well recognized before the end of the eighteenth century when Caleb Parry reviewed the recent literature and added some of his own experiences. He considered the condition common enough to be worthy of a book that he wrote and entitled *An inquiry into the symptoms and the causes of syncope anginosa, commonly called angina pectoris*. He accompanied one of his own patients on an uphill walk, the gentleman having volunteered to thus induce the pain so that he could be observed during the attack. Parry remarked on "considerable experience of my own with this disorder" and was able to distinguish what he considered to be true angina pectoris from the paroxysmal discomfort associated with asthma. He also excluded patients in whom either dyspnoea was the dominant symptom or the pain abdominal in location. Modern observers might also query some of Parry's examples in which "syncope" was the main feature, but with this exception his careful observations and critical judgement suggest to a contemporary physician that his patients and those of half a dozen other contemporary doctors whose diagnoses he accepted were in fact suffering from angina pectoris. Indeed modern physicians might regard as truly anginal instances of pain that were characteristic in nature, but tended to be dismissed by Parry because they occurred only in association with palpitations.⁶⁶ A rapid heart rate results in increased work for the heart and is now recognized as a frequent precursor of the typical pain.

Some of the diagnoses of angina pectoris made by late-eighteenth-century authors other than Parry do not stand up to modern critical appraisal. Indeed one of Heberden's original patients would appear from his description to have had some

⁶¹ J Wall, 'Letter to Heberden', *Medical Observations and Inquiries by a Society of Physicians in London*, 1776, 5: 233–51, quoted by W L Proudfit, 'Origin of concept of ischaemic heart disease', *Br Heart J*, 1983, 50: 209–12, p. 209.

⁶² Fothergill, *op. cit.*, note 20 above, p. 235.

⁶³ Leibowitz, *op. cit.*, note 25 above, p. 93.

⁶⁴ P M Latham, *Collected works*, vol. I, *Diseases of the heart*, London, New Sydenham Society, 1876, p. 445.

⁶⁵ Heberden, *op. cit.*, note 15 above, p. 362.

⁶⁶ Parry, *op. cit.*, note 24 above, p. 61.

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form of purulent chest infection.⁶⁷ A man whose pain was attributed by J Hooper to angina pectoris would seem from both the clinical course and the autopsy findings to have suffered from acute pericarditis.⁶⁸ The stomach pains of which John Hunter complained in 1773 were quite unlike his later symptoms and may have had nothing to do with his heart.⁶⁹ However, after critical examination and exclusion of the reported complaints of some individual patients, there remain a considerable number of late-eighteenth-century descriptions of pain with the essential characteristics of angina pectoris, namely, location in the chest, jaw or arms, episodic attacks with a clear-cut relation to exertion, a sense of imminent death, relief with rest and, in contrast, a sense of well-being between the attacks. Frequently the authors identified the pain with that described by Heberden. Fothergill instanced two patients, one an obese man in his late fifties with a previous history of gout who developed “spasm in the breast” that occurred only with exercise, usually in the morning, particularly when walking quickly or into the wind, and initially with invariable relief with rest. Fothergill noted too that the pain on effort was particularly severe if walking uphill.⁷⁰ The symptoms of which John Hunter complained in the last eight years of his life were typical. His clinical course was recorded in detail by his brother-in-law who described how in 1785 Hunter developed unpleasant sensations in the left side of his face with radiation to the head, lower jaw, throat and left arm as far as the ball of his thumb. Occasionally the pain, as it was subsequently described, occurred in the right arm as well and it later extended to his sternum. It was often agonizing and on occasion accompanied by fainting. At the start, these episodes were brought on by exercise, such as walking up a slope or climbing up stairs, but never when going down. Eventually the pains occurred even at rest and on occasion they woke him from sleep. The attacks continued to occur with agitation and in particular when in difficult situations which he could not control. John Hunter foretold the possibility of his dying during an emotionally induced attack and in this he was prescient. In 1793 he did indeed pass away during one such episode.⁷¹

An anonymous individual wrote a letter to Heberden that was published with an addendum in 1785. In it the writer described the similarity of his own symptoms to the composite picture presented earlier by Heberden.⁷² The patient was once thought to be Dr John Haygarth of Chester, but a careful study by Paul Kligfield and Konrad Filutowski suggests very strongly that he was John Mallet, a merchant of Exeter and London.⁷³ The writer, evidently therefore a layman, suffered attacks of pain in the left upper arm with radiation to the left chest and accompanied by slight faintness and shortness of breath. These attacks occurred when walking and in particular

⁶⁷ Heberden, *op. cit.*, note 16 above, manuscript 342.

⁶⁸ J Hooper, ‘A case of angina pectoris’, *Memoirs of the Medical Society of London*, 1792, 1: 238–43, p. 241.

⁶⁹ E Home, ‘A short account of the author’s life’, in J Hunter, *A treatise on the blood, inflammation, and gunshot wounds*, London, John Richardson, 1794, p. lxi.

⁷⁰ Fothergill, *op. cit.*, note 20 above, p. 234.

⁷¹ Home, *op. cit.*, note 69 above, p. 234.

⁷² Anon., ‘A letter to Dr. Heberden, concerning the angina pectoris; and an account of the dissection of one, who had been troubled with that disorder’, *Med Trans Coll Physns Lond*, 1785, 3: 1–11, p. 3.

⁷³ Paul Kligfield and Konrad Filutowski, ‘“Dr. Anonymous” unmasked: resolution of an eighteenth century mystery in the history of coronary artery disease’, *Am J Cardiol*, 1995, 75: 1166–9, p. 1168.

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after dinner. Initially there was immediate relief with slowing, but the pains recurred after resumption of his usual pace. The attacks were worse in winter and accompanied by a sense of impending death, but remission was followed by a normal sense of wellbeing. In an addendum Heberden reported that three weeks after writing the letter, its author developed an episode of chest pain at rest that lasted half an hour and was followed by death.⁷⁴ The modern clinician would unhesitatingly diagnose the pain as anginal. It is all the more convincing as the description was apparently written by a layman after reading a single published description of the symptoms. Samuel Black, practising in Ulster, described one of his patients whose symptoms too were typical. He was a man of fifty-five, who in 1792 developed pain below the left breast while walking uphill. It cleared with rest, recurred repeatedly while walking, and remitted repeatedly on standing still. It was accompanied by anxiety and numbing in the left shoulder and arm.⁷⁵

When describing the features of angina pectoris, many of these reports contained details of great diagnostic significance. They included the aggravating effects of walking in winter, a tendency for the pain to come on more readily with morning activity, with going upstairs rather than down and with taking exercise shortly after a meal. These are all features uniquely typical of angina pectoris. They could hardly be anything else. The diagnostic conclusions that can be drawn from William Heberden's initial description and from the subsequent review by Parry are therefore borne out by the majority of other reports by late-eighteenth-century English physicians. Some of these publications may not have added to an understanding of the symptom complex and individual authors may have been motivated on occasion by a desire to seek attention. Their recognition of their patients' pains as anginal may have been triggered in some measure by Heberden's verbal presentation and subsequent publication. However, with the exception of one patient of Fothergill, no contemporary of Heberden made retrospective mention of a single person with angina pectoris having been seen before 1768 and diagnosed in retrospect.⁷⁶ It is hard to conceive that symptoms as severe, characteristic and dramatic as those being described widely after 1768 could have gone completely unnoticed earlier. The accounts of the late-eighteenth-century collective clinical experiences combine to indicate that, in contrast to earlier years, patients who suffered from the pain of angina pectoris were no longer uncommon in late-eighteenth-century England.

"Ossification" or, to use the modern term, "calcification" was frequently reported in eighteenth-century autopsies of patients who had suffered from angina pectoris for varying periods of time, one a patient of Fothergill with typical symptoms in life.⁷⁷ In an autopsy description of a coronary artery, Jenner noted that a "firm fleshy tube . . . did not appear to have any vascular connections with the coats of the artery, but seemed to lie merely in simple contact with it". This is clearly recognizable as a

⁷⁴ Anon., *op. cit.*, note 72 above, p. 7.

⁷⁵ Samuel Black, 'Case of angina pectoris with remarks', *Memoirs of the Medical Society of London*, 1795, 4: 261–79, p. 262.

⁷⁶ Fothergill, *op. cit.*, note 20 above, p. 241.

⁷⁷ John Fothergill, 'Further account of the angina pectoris', *Medical Observations and Inquiries*, 1776, 5: 252–8, p. 255.

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description of a coronary thrombosis with occlusion of the vessel. Jenner also commented on “the importance of the coronary arteries and how much the heart must suffer from their not being able duly to perform their functions”, thereby suggesting that the coronary artery blood flow was significantly impeded.⁷⁸ Post-mortem examination of a patient of Fothergill, performed in 1773, revealed the presence of “a small white spot as big as a sixpence resembling a cicatrix” located near the apex, the description being highly suggestive of an old myocardial infarction.⁷⁹ At other autopsies the heart muscle was described as “looser” and paler, as would now be associated with the fatty degeneration of chronic ischaemia. Cardiac rupture was also observed.⁸⁰ Together these findings indicate that not only angina pectoris as a symptom, but also its connection to virtually all major pathological manifestations of coronary arterial disease was being recognized before the end of the eighteenth century.

Little is known about the social status of William Heberden’s patients, his case notes containing clinical details but little else. It is noteworthy, however, that he was a very prosperous physician, able in 1767 to spend over £5000 on the purchase of a house, merely to have it demolished in order to make way for a new home.⁸¹ His practice included King George III, peers, knights, and members of parliament with their families. There is no record, however, of his seeing dispensary patients and, having failed to receive an appointment to the staff of St Bartholomew’s Hospital, he did not attend hospital clinics.⁸² It is likely, therefore, that apart from an occasional servant of a private patient, his practice was very largely confined to the ranks of the privileged. Black, writing in 1819, noted that angina pectoris was an affliction of the prosperous with the “poor and laborious” being unaffected.⁸³ This was reported by William Osler to have remained a feature of the condition a century later.⁸⁴ This characteristic of angina pectoris was observed for a further fifty years, Richard G Wilkinson remarking that “coronary heart disease in the first half of the twentieth century was regarded as a businessman’s disease”.⁸⁵ Although eighteenth-century physicians tended to favour “salubrious” locations and moneyed patients, there were dispensaries where doctors attended patients who were unable to pay and latterly the indigent received care in hospital outpatient clinics.⁸⁶ It is unlikely that if anything but very rare the complaint would have gone unobserved by physicians attending the needy. In having apparently been a rarity among the poor whilst not uncommon among the prosperous, angina pectoris has been exceptional among the afflictions

⁷⁸ Leibowitz, *op. cit.*, note 25 above, p. 94.

⁷⁹ Fothergill, *op. cit.*, note 20 above, p. 244.

⁸⁰ Morgagni, *op. cit.*, note 8 above, epistle xxvii, pp. 837–8.

⁸¹ Ernest Heberden, *op. cit.*, note 17 above, p. 149.

⁸² *Ibid.*, p. 111.

⁸³ Samuel Black, *Clinical and pathological reports*, Newry, Alexander Wilkinson, 1819, p. 31.

⁸⁴ William Osler, ‘The Lumleian lectures on angina pectoris, Lecture I’, *Lancet*, 1910, i: 697–702, p. 698.

⁸⁵ Richard G Wilkinson, *Unhealthy societies: the afflictions of inequality*, London and New York, Routledge, 1996, p. 44.

⁸⁶ Joan Lane, ‘The medical practitioners of provincial England in 1783’, *Med Hist*, 1984, 28: 353–71, p. 355.

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of humankind. Possible reasons for this unusual feature are sought in subsequent chapters.

In contrast to the experience in England, there were almost no reports in the medical literature of any patients with angina pectoris having been seen elsewhere during almost half a century following Heberden's 1768 presentation. Eugène Desportes, writing in France in 1811, quoted five German publications which mentioned angina pectoris by name.⁸⁷ I have been able to trace only the earliest one of them, a dissertation by Schaeffer in 1787. This was devoted in large measure to descriptions of accounts by a total of fourteen British physicians.⁸⁸ There is extensive discussion of clinicopathological relationships, disagreements with the opinions of other writers being expressed forcibly and indeed undiplomatically.⁸⁹ However, there is but a single report of a German case, the patient of Friedrich Hoffmann, which antedated Heberden's presentation to the Royal College of Physicians of London and has been described earlier in this chapter.⁹⁰ It is evident from its title that one of the other German publications quoted by Desportes concerns but a single patient.⁹¹ There is only one other reference to a possible Continental author, a physician with a Spanish name. In contrast, Desportes quoted no fewer than seventeen British authors, including William Heberden himself. The other sixteen included Dr Wall with his twelve or thirteen patients, the anonymous writer who had informed Heberden about his own experience of angina, Caleb Parry and Erasmus Darwin, the paternal grandfather of Charles. Two English case histories were quoted *in extenso* by Desportes, one a patient of Fothergill. In contrast, he reported no French cases from the eighteenth century.⁹² The earliest possible one that he was able to find in the French medical literature was based on a description by M Baumes as late as 1808, forty years after Heberden's presentation to the Royal College of Physicians of London.⁹³ Jean Nicholas Corvisart, the leading physician in France at the beginning of the nineteenth century, and Napoleon's personal doctor, wrote an essay in 1811 specifically devoted to illnesses and organic lesions of the heart and great vessels without making any mention whatsoever of angina pectoris, even though he described the pathology of cardiac rupture in detail.⁹⁴ The failure of physicians in France to report patients with angina cannot be attributed to lack of clinical acumen. Auscultation was pioneered in France by René Théophile Hyacinthe Laënnec at this time.⁹⁵ The achievements of the galaxy of French physicians who throughout the nineteenth century provided eponyms for clinical features and disease

⁸⁷ Eugène H Desportes, *Traité de l'angine de poitrine, ou nouvelles recherches sur une maladie de la poitrine, que l'on a presque toujours confondue avec l'asthme, les maladies du coeur, etc.*, Paris, Méquignon, 1811, p. 4.

⁸⁸ G B Schaeffer, *De angina pectoris vulgo se dicta*, Dissertatio inauguralis medica, Gottingen, H M Grape, 1787, iii, p. 4.

⁸⁹ *Ibid.*, xi, pp. 33–4.

⁹⁰ Hoffmann, *op. cit.*, note 33 above, pp. 19–20.

⁹¹ Desportes, *op. cit.*, note 87 above, pp. 3ff.

⁹² *Ibid.*

⁹³ *Ibid.*, p. 5.

⁹⁴ Jean Nicholas Corvisart, *Essai sur les maladies et les lésions organiques du coeur et des gros vaisseaux*, Paris, Méquignon-Marvis, 1818, p. 266.

⁹⁵ Leibowitz, *op. cit.*, note 25 above, p. 111.

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entities in all branches of medicine attest to their ability. Neither can the failure be attributed to doctors in France being unaware of Rougnon's 1768 case description. This was reported initially in 1768 in a personal letter to Dr A-Ch Lorry, a well-known Paris physician, but published in abstract form later in the same year in the widely read publication *Journal de Sçavans* (*Savants* in modern French).⁹⁶ Most certainly lack of awareness of angina cannot be attributed to poor communication across the English Channel. Despite the periodic hostilities, a great deal of interchange of ideas and information took place. As noted earlier, Desportes was able to refer to the case reports of seventeen British physicians in a book published in Paris in 1811 at a time when the war between Britain and France had been raging for eight years.⁹⁷ Black, as early as 1819, suggested that Corvisart's failure to make mention of angina pectoris raised the possibility that it was a complaint not then being experienced in France.⁹⁸

A similar silence characterized the American medical scene. Physicians practising in the main cities of the British American colonies and the subsequent United States had numerous contacts with England, notwithstanding interruption during the War of Independence, and communication with Europe was frequent. During his years in the American diplomatic service in Europe, Benjamin Franklin was instrumental in transmitting scientific ideas and information across the Atlantic Ocean. The results of Jenner's report on the effectiveness of vaccination was known in the United States within the year. Fothergill, of whom much mention has been made earlier, spent several years in America. Dr William Shippen Junior, who was one of his students, also studied in England under William Hunter before returning to Philadelphia in 1762, subsequently playing an important part in the establishment of the medical college of that city. Benjamin Rush, the outstanding Philadelphia physician of his day, had also travelled in Europe, and Dr John Morgan of Philadelphia had visited Italy, meeting Morgagni in Padua in 1764. However, the first reference to angina pectoris in the American medical literature appears to be that which was written by John Warren in 1812 and published on the first page of the very first issue of the *New England Journal of Medicine and Surgery*, the forerunner of the present *New England Journal of Medicine*. Warren reviewed the history of the condition and noted the relation to coronary ossification, quoting extensively from the work of English physicians, notably Heberden himself, Wall, Fothergill, John Hunter and Jenner. Warren reported four of his own cases, but made no mention of this symptom having occurred in the practices of any other American physicians.⁹⁹ Angina pectoris does not appear to have been observed in the United States in either the late eighteenth or the very early years of the nineteenth century.

During the last half of the eighteenth and the beginning of the nineteenth century the report of Hoffmann from Halle generated only five possible accounts of angina pectoris in any of the kingdoms or principalities of pre-unification Germany. Morgagni's description of two patients was followed by no other in the various

⁹⁶ Leibowitz, *op. cit.*, note 25 above, p. 99.

⁹⁷ Desportes, *op. cit.*, note 87 above, p. 344.

⁹⁸ Black, *op. cit.*, note 75 above, p. 8.

⁹⁹ John Warren, 'Remarks on angina pectoris', *N Engl J Med Surg*, 1812, 1: 1–11, pp. 1–4.

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states of Italy even by 1804, when reference to fatty myocardial change was made by Antonio Scarpa, a pathological description unaccompanied by any recording of prior exertional chest pain.¹⁰⁰ None was reported from the Netherlands by the countrymen of Boerhaave. It is hardly credible that the silence of Western European and American medical writers could reflect a failure of recognition by physicians, fully acquainted as they were with the many descriptions of the symptom complex as documented in England. One can but conclude that for several decades after 1768 angina pectoris scarcely affected anyone living either on the Continent of Europe or in North America. W L Proudfit remarked that “a just appellation” for angina pectoris “would be a British disease”.¹⁰¹ Reasons for its exclusive geographical as well as its societal distribution must therefore be sought in conditions unique to eighteenth-century Britain.

¹⁰⁰ Antonio Scarpa, *Sull'aneurisma, riflessioni ed osservazioni anatomico-chirurgiche*, Pavia, 1804, quoted in Leibowitz, *op. cit.*, note 25 above, p. 106.

¹⁰¹ William L Proudfit, 'Origin of concept of ischaemic heart disease', *Br Heart J*, 1983, **50**: 209–12, p. 209.