

THADDEUS SHOLTO: (MIS)DIAGNOSED

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“*Omne ignotum pro magnifico.*”

—“Red Headed League”

The Canon is replete with references to medical conditions, maladies, and various disease states. The vast majority of these are allusions to or diagnoses of sundry neuroses, nervous disorders, or “brain fever” (“The Resident Patient,” *A Study in Scarlet*, “The Boscombe Valley Mystery,” “The Six Napoleons,” “The Beryl Coronet,” “The Naval Treaty,” “The Copper Beeches,” “The Cardboard Box,” “The Crooked Man,” “The Musgrave Ritual,” *The Hound of the Baskervilles*), as well as a host of epidemiologically wide-ranging “infections” (*The Sign of the Four*, *A Study in Scarlet*, “A Case of Identity,” “The Gloria Scott,” “The Yellow Face,” “The Dying Detective,” “Abbey Grange,” “The Sussex Vampire,” *The Hound of the Baskervilles*, “The Missing Three-Quarter,” “The Final Problem,” *The Valley of Fear*) that are well catalogued and, for the purposes of this discussion, will not be elucidated further. Far more interesting (for a cardiologist) are questions regarding the true terminal event of Sir Charles Baskerville or the specific type of aortic aneurysm culminating in the death of Jefferson Hope. These concerns and questions may be the subject of a future paper. With respect to valvular heart disease, however, only one story and character come to mind: Thaddeus Sholto in *The Sign of the Four*.

In Victorian and Edwardian England, and indeed, even today on a world-wide basis (counting the hundreds of millions in underdeveloped or Third World countries), the most common cause of valvular heart disease requiring intervention is rheumatic mitral stenosis (with or without regurgitation). Physicians in Conan Doyle’s era were all attuned to this, and a diagnosis could easily be made by routine auscultation. Although rheumatic fever can affect the mitral and aortic valves, no other specific valvular abnormality is mentioned outright in the Canon. Fitzroy McPherson, the science master (“The Lion’s Mane”), “whose life had been crippled by heart trouble following rheumatic fever,” no doubt had a rheumatic cardiomyopathy (a disease of the heart muscle following rheumatic fever) given the fact that serious valvular pathology occurs decades after rheumatic fever, and he is described as “a fine upstanding young fellow.”

Mitral valve prolapse (MVP) syndrome (unknown or at least not well defined in Conan Doyle’s era) is a disorder that continues to undergo refinements in diagnosis, prevalence, and association with other physical as well as psychological disorders. DaCosta, in the late nineteenth century, described an “irrita-

ble heart” disorder in Civil War soldiers who complained of extreme anxiety, fear, palpitations, chest pains, and syncope. In one early British study of “irritable heart” syndrome, Levine suggested that this entity be termed “neurocirculatory asthenia”; other authors called it “cardiac neurosis.” It was not until 1963 that Barlow demonstrated that the auscultatory findings (in patient groups similar to the above) are frequently associated with prolapse of the mitral valve. I could find no mention of MVP in any of the medically related writings of the Canon.¹ Van Liere, a physiologist, incorrectly refers to Thaddeus’s condition as “cardiac neurosis” (see above), and Rodin, a pathologist, refers to it as “hypochondriasis.” Ramanan, writing in *Archives of Internal Medicine*,² states, “Thaddeus Sholto clearly manifested the features of cardiac neurosis.”

The salient clinical features of MVP syndrome³ can include anxiety, cardiac neurosis, giddiness, palpitations, panic disorder (sounding like someone familiar?), and atypical chest pain. Auscultatory findings (murmurs, clicks) may or may not be immediately evident, so we can’t blame Watson for potentially missing them. Most interestingly, many MVP patients have a keen “self awareness” of their condition bordering on hypochondriacal states. MVP syndrome is also the most prevalent cardiac valvular abnormality, certainly in the Caucasian population, affecting as many as 5% to 15% of individuals.

Armed with these data, we could do no better than to revisit “an oasis of art in the howling desert of South London”:

“A doctor, eh?” cried he, much excited. “Have you your stethoscope? Might I ask you—would you have the kindness? I have grave doubts as to my mitral valve, if you would be so very good. The aortic I may rely upon, but I should value your opinion upon the mitral.”

I listened to his heart, as requested, but was unable to find anything amiss, save, indeed, that he was in an ecstasy of fear, for he shivered from head to foot.

“It appears to be normal,” I said. “You have no cause for uneasiness.”

“You will excuse my anxiety, Miss Morstan,” he remarked, airily. “I am a great sufferer, and I have long had suspicions as to that valve.”

Following Thaddeus Sholto’s remarkable narrative and noble confession, he continues to expound, even as he bids farewell to his visitors: “‘My health is somewhat fragile,’ he remarked as he led the way down the passage. ‘I am compelled to be a valetudinarian.’”

Compelled indeed! Thaddeus Sholto had MVP syndrome! A more accurate description of the persona of MVP could hardly be found in any heart specialist’s office even today. Patients with MVP are more prone to cardiac arrhyth-

mias, and the syndrome certainly has a higher incidence in family members with the disorder. Major John Sholto, upon seeing the face of Jonathan Small pressed against his window, almost certainly died of an arrhythmia brought on by extreme anxiety and fear, and very likely had MVP himself as an arrhythmic substrate. It is remarkable as well that Thaddeus expressed “grave doubts” as to his mitral valve; in essence, he was correct.

“Nothing clears up a case so much as stating it to another person.”

—“Silver Blaze”

As an entertaining litmus test for my theory, after a recent quarterly cardiology section meeting I asked seven of my colleagues to indulge me by allowing me to read aloud the above passage that had ignited my thinking about Sholto’s true condition. When I polled them for a cardiac diagnosis, five of seven thought he had “probable” MVP, and the sixth thought it was “certainly possible,” but he would be more comfortable with the diagnosis if some auscultatory finding was described. I then disclosed that the chapter, and story, were written by Dr. A. C. Doyle and published in 1890 (I chose not to bore them with the delicious bibliographic details; none were Sherlockians) decades before any accurate clinical description of MVP syndrome existed. All of the attendings in session chuckled, and two congratulated me after our meeting for a “clever” and insightful reading of the chapter. I retorted that it was great fun, but certainly not so “clever.” One (Dr. T.) insisted it was, and wanted me to present it to some of our cardiology fellows (in training). Dr. T. also knows Latin, which allowed me my *congé* from “The Red-Headed League”: “*Omne ignotum pro mag-nifico.*” I walked away with a smile on my face.

NOTES

1. E. J. Van Liere, *A Doctor Enjoys Sherlock Holmes*, New York: Vantage Press, 1959; A. E. Rodin and J. D. Key, *Medical Casebook of Doctor Arthur Conan Doyle*, Malabar, Fla.: Robert E. Krieger Publishing, 1984; S. V. Ramanan, “Cardiovascular Disease in *The Adventures of Sherlock Holmes*,” *Archives of Internal Medicine*, Vol. 161, No. 5 (12 March 2001), pp. 701–705.
2. Ramanan.
3. Eugene Braunwald, (ed.), *Heart Disease: A Textbook of Cardiovascular Medicine* (3rd ed.), Philadelphia: W. B. Saunders, 1988, pp. 1045–1051; J. Willis Hurst (ed.), *The Heart* (6th ed.), New York: McGraw-Hill, 1986.