LETTERS TO THE EDITOR

To the Editor—Development of the catheter technique for His bundle recordings

I am writing this letter to contradict Dr Scherlag’s claim to have developed the catheter technique for His bundle recordings.¹

In 1963, with a National Institutes of Health grant, I had a multielectrode catheter manufactured by Electronics for Medicine.² In Staten Island, I developed the catheter technique to record His bundles in dogs (1965) and humans (1966) with the assistance of Dr Emanuel Stein. This was before Scherlag’s 1967 publication on dogs.³ I moved to Miami without publishing my research done in Staten Island. Scherlag implies that I obtained a grant, perceived and custom built a multielectrode catheter, but never used it.

My 50-year silence was because I did not place importance on getting credit. However, recently I have been accused of copying Scherlag for the abstract I published in Miami (1968) before Scherlag’s moved there.⁴ Samet, the department head, subsequently added Scherlag’s name to that paper.⁵

My Miami publications show I did not copy Scherlag. My nomenclature was different from his. I divided P-R interval into P-A, A-H, and H-V.⁶ Scherlag divided it into P-H and H-Q.⁷ His terminology indicates lack of understanding of the role of different conduction tissues with differing properties. Realizing his nomenclature flaws, he adopted mine by inserting the term H-V into the discussion section of his 1969 paper.⁸ He copied my technique and nomenclature.

In HeartRhythm, Scherlag⁹ omits previously acknowledged statements in Pacing and Clinical Electrophysiology¹⁰: “John Lister, prior to leaving for Miami, had a 12 pole electrode catheter especially built for the exploration of the right heart. Utilizing this catheter, which eventually lost many of its 12 rings, I was able to consistently record His bundle activity at the A-V junction in the right heart.” This is inconsistent with his report in 2 dogs, claiming to have used a specially designed 6-electrode catheter.¹¹ He did not describe who made the catheter, which enabled him to submit his paper by July 1966.¹² Scherlag implies that he had the idea for a multielectrode catheter by the end of his tenure with Dr Hoffman in 1965, had obtained funds, and had a catheter manufactured by early 1966. If he had manufactured a 6-electrode catheter, why did he use my 12-electrode catheter? Dr Stein attests to these facts.

John W. Lister, MD (listernw@yahoo.com), Emanuel Stein, MD

References
2. Lister JW, Hoffman B. NIH Senior Investigator two year award: electrophysiology of the heart. NIH Grant HE 09156-01;1963.

Reply to the Editor—Development of the catheter technique for His bundle recordings

The first sentence of Dr Lister’s letter is inaccurate. In my viewpoint article,¹ I did not claim that I developed the His bundle recording technique; please note: “Under the leadership of Dr Anthony Damato, the His bundle recording procedure became one of the cornerstones of the emerging subsience of cardiology, Clinical Electrophysiology.” In this regard, in 1980, our article² was chosen by Current Contents, Clinical Practice as “This Week’s Citation Classic,” which indicated the article had been cited more than 720 times since 1969. It should be noted in that invited article, I gave the following credit: “John Lister, a colleague, had written a grant proposal before leaving Staten Island for Miami. In it he proposed to map the right heart using an electrode catheter with as many as six bipolar pairs…..”

Now Dr Lister writes, “In 1963 I had a multi-electrode catheter manufactured… In Staten Island I developed the catheter technique to record His bundles in dogs and (1965) and Man (1966) with the assistance of Dr. Emmanuel Stein. I moved to Miami without publishing my Staten Island research.”

The historical record contradicts Dr Lister’s assertion of credit for developing the catheter technique for recording His bundles. An electrode catheter recording of His bundle activity was reported by Kossmann et al³; Puech’s group used electrode catheters to record His bundle potentials when placed across atrial septal defects in patients⁴; and Watson et al⁵ recorded His bundle potentials in a patient with Ebstein anomaly. These studies preceded the studies from the Staten Island group in which consistent and reproducible His bundle recordings were registered in a consecutive number of patients.⁷ All of these were published reports, unlike Dr Lister’s unpublished claims.

I was grateful for the important modifications by Dr Lister of our initial nomenclature for the P-R conduction intervals in a publication that he and I coauthored.⁹ This was not the first time I, as a postdoctoral student, learned from John when we both were in Dr Brian Hoffman’s Pharmacology Department at Columbia University.

In more than one of my publications did I not fail to mention Dr Lister’s contributions, as he states from my
John Lister, prior to leaving for Miami, had a 12 pole electrode catheter especially built for the exploration of the right heart. Utilizing this catheter, which eventually lost most of its 12 rings, I was able to consistently record His bundle activity at the A-V junction in the right heart.” Unfortunately, what was not quoted by Dr Lister was the rest of that paragraph, “Dr. Richard Helfant, who had joined the clinical service at that time, suggested that I use a standard NBIH 5-7 French electrode catheter for recording His bundle activity. I found this…to be more manageable than the 12 large gauge experimental model….It could be placed with greater ease at the A-V junction for recording His bundle activity.” It should be mentioned that the 2 successful recordings made with Dr Lister’s modified catheter stated in an animal study were based on attempts to produce a J curve so that it could be introduced from the femoral vein to the A-V junction. This resulted in successive breakage and loss of electrode rings. Our initial attempts to deploy this stiff 12F catheter could only be achieved from the jugular vein in the dog. Although I was initially glad that Dr Lister had left the catheter before moving to Miami, I assumed he had a similar experience with the catheter, which probably explains his decision not to take it with him or publish any of his findings using this catheter.

Finally, I never stated or implied that I intended to have manufactured a catheter for the purpose of His bundle recordings because standard bipolar electrode catheters were commercially available, as stated earlier. Also, in my Viewpoint article I did not mention or imply that Dr Lister had copied my work.

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References