Cardiol Young 2004; 14: 577
© Cambridge University Press
ISSN 1047-9511

Letter to the Editor

Dear Sirs,

I have read with interest the historical vignette of Michael Tynan, telling us how the initial description of the murmur of the persistently patent arterial duct by George Gibson was followed by many incorrect citations, even in famous and well-known medical books.[1]

The review highlighted the essential work of Gibson in his description of this murmur. Nowadays, some may think that such a musical subject is old-fashioned in the face of new imaging techniques. In my opinion, another aspect that has come to the fore through better knowledge of this murmur is an appreciation of the evolution of the treatment of the persistently patent arterial duct.

Before the era of cardiac catheterisation and echocardiography, a good diagnosis in congenital heart disease relied mainly on clinical examination. With regard to persistence of the arterial duct, the concept of surgical closure was a real breakthrough. In 1907, John Munro described how to correct this lesion by simple ligation.[2] He performed the procedure on the cadaver of a newborn girl who died from this lesion in 1888! He did not comment concerning her cardiac murmur, but questioned "would it be justifiable to subject a child to this risk without knowledge of the exact lesion?" He concluded "with a reasonable basis for believing that the duct were open, it seems as though such an operation would be justifiable", taking into account the possibility of a fatal outcome. In the same paper, Munro listed cardiac anomalies to be differentiated from the persistently patent arterial duct, commenting that "in regard of making a diagnosis, however, my paediatric advisers were not reassuring". Munro et al. were probably not aware of Gibson's publications.

As a result, >30 years passed before the arterial duct was first successfully ligated. After the attempt of Graybiel,[3] in 1939 Gross reported such a ligation performed 1 year before,[4] in a 7-year-old girl. This was the beginning of the era of cardiac surgery. The description of the murmur by Gross and Hubbard was, in fact, very similar to that of Gibson, albeit that Gibson was not cited: "There was a rough 'machinery' murmur heard with maximal intensity over the pulmonic area to the left of the sternum in the second and particularly in the third interspace. It was continuous throughout the cardiac cycle but like the thrill was greatly accentuated during systole ..." In the late 30s' and early 40s', although paediatric cardiology and surgery were still very new, better knowledge of Gibson's murmur made possible the accurate diagnosis of persistent patency of the arterial duct, and the possibility of treatment became realistic. According to the pioneering work of Gibson and Munro, ligation of the arterial duct was justifiable in children presenting with symptoms.

Thus, even if some citations and references may be wrong in textbooks and publications, as pointed out by Tynan, it is possible to rectify these deficiencies and place them in the historical perspective of medicine.

François Godart, MD, PhD
Service des Maladies Cardiovasculaires
Infantiles et Congénitales
Hôpital Cardiologique
Bvd du Pr Leclercq 59037, Lille cedex, France
Tel: +33 3 20 44 53 69; Fax: +33 3 20 44 54 56;
E-mail: f-godart@chru-lille.fr

References

1. Tynan M. The murmur of the persistently patent arterial duct, or "The colonel is going to a dance". Cardiol Young 2003; 13: 559–562.
2. Munro J. Ligation of the ductus arteriosus. Ann Surg 1907; 46: 335–338.
3. Graybiel A, Strieder JW, Boyer NH. An attempt to obliterate the patent ductus arteriosus in a patient with bacterial endocarditis. Am Heart J 1938; 15: 621–624.
4. Gross R, Hubbard J. Surgical ligation of a patent ductus arteriosus. Report of first successful case. JAMA 1939; 112: 729–731.

Professor Tynan was shown the letter from Dr Godart. He thanks him for his interest, and hopes his letter will have educational value.

https://doi.org/10.1017/S1047951104005220 Published online by Cambridge University Press