

To the Editor

We read with interest the article by Dr Zucker et al¹ on "Residual patency of the arterial duct subsequent to surgical ligation." We have a similar experience with 62 children whose ducts were ligated between January 1989 and December 1991. At the time of surgery, their ages ranged from two months to 13 years. Six patients had additional cardiac malformations. The children were re-examined between the tenth and twentieth day after surgery, and then again three months and one year after the operation. A shunt was discovered on color Doppler immediately after surgery in 10 patients (16%), being small in all cases. Three months later, the shunt could still be detected in eight children (13%) and, after one year, in only six (10%). This diagnosis of residual patency of the arterial duct after surgical ligation based on findings of color Doppler echocardiography was confirmed in all cases by continuous wave Doppler. None of the patients evaluated had any symptoms due to the left-to-right shunt. Neither did any patient have a typical continuous murmur on auscultation.

Our observations confirm that, after surgical ligation of a patent duct, residual flow can persist in individual patients, although the shunt might close spontaneously during further follow-up. We have recommended prophylactic use of antibiotics to prevent bacterial endocarditis. We have not considered surgery or catheter intervention for these patients. The rates of residual patency of the duct after ligation and after transcatheter closure seem to be comparable.^{2,3} Thus, the much discussed relative disadvantage of residual shunts after double umbrella occlusion is at least less relevant. Late spontaneous closure of residual shunts after surgical ligation seems to be unusual.

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References

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The study of cardiovascular pathology is very much at the cross-roads. It has long been recognized by those who specialize in cardiology in the young that a thorough knowledge of the structure of the congenitally malformed heart is a prerequisite for successful diagnosis and treatment. The basis of this knowledge was laid by giants in the field such as Jesse Edwards, Maurice Lev and Jack Titus who were, first and foremost, practising pathologists. Over the years that have passed since the establishment of these pathological landmarks, advances often have been made by practising clinicians working closely with their pathologists, or else morphologists who have specialized in the study of congenitally malformed hearts and who depended equally on the support of their collaborating pathologists. Those who now specialize in these fields and work in Europe are concerned at the apparent lack of young morphologists and pathologists who are coming forward to carry on the torch. This concern for the future of cardiac pathology, of course, applies to the study of acquired cardiovascular disease just as much as to heart disease seen in the young. The situation in North America has been addressed by the formation of the *Society of Cardiovascular Pathology*, and most European cardiac pathologists are members of this Society. Thus far, however, the Society has not seen fit truly to promote educational events in Europe. There are other organizations which do concern themselves with morphological aspects of congenital cardiac malformations, and which are centered in Europe, such as the *Working Group in Developmental Anatomy and Pathology* of the *European Society of Cardiology*, and a similar working group of the *Association of European Paediatric Cardiologists*. These working groups unequivocally provide an interface between clinicians, morphologists and developmental biologists but have not, with some notable exceptions, formed a focus of interest for pathologists. So as to stimulate such a focus, therefore, a group of pathologists and morphologists, having as their major interest the pathology