LETTERS TO THE EDITOR

Letters to the Editor will be published, if suitable, and as space permits. They should not exceed 1,000 words (typed double spaced) in length, and may be subject to editing or abridgment.

Strip Chart vs Polaroid Echocardiogram: Continued

To the Editor:

I feel that Dr. Greenwald’s strong comments published in May 1974 issue of Circulation directed to Dr. McLaurin’s paper of September 1973 are unjustified. Dr. Greenwald has done a disservice to the many excellent papers based on polaroid echocardiograms. While there is no doubt that strip chart records are preferable to polaroid echocardiograms, because of the ease with which echocardiography may be performed using strip chart, it should be pointed out that expensive equipment is no substitute for careful technique. The idea is to sector scan the heart, and it is entirely possible to do this with polaroid on a slow sweep. A strip chart recorder is as expensive as an echocardiograph itself. Not all hospitals are as lucky as Dr. Greenwald’s to afford $20,000 for echocardiography equipment with a strip chart. This is particularly true when a new service is being established in a community. I would reaffirm that gadgetry is no substitute for quality and experience.

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Subpulmonary Ventricular Septal Defect with Pulmonary Stenosis

To the Editor:

In a recent Clinopathologic Correlation of this journal (Circulation 49: 173, 1974), Drs. Satyanarayana and Edwards cited two cases of subpulmonary ventricular septal defect with pulmonary stenosis (CSD + PS) as one of the conditions simulating the tetralogy of Fallot (ToF). They stated that this association was particularly uncommon. Contrary to this statement, CSD + PS is not rare in the Japanese congenital heart disease population, and constitutes a rather important part of "clinical ToF."

During the last three years, intracardiac repairs have been performed on 279 cases of clinical ToF in the Heart Institute of Japan, of which 26 cases (9.3%) were CSD + PS. Similar figures were observed by other Japanese cardiovascular surgery teams. 1, 2

In 1000 autopsy series of congenital heart disease in our Institute, 109 cases (10.9%) were classical ToF and 22 cases were CSD + PS, of which 85% were surgical deaths.

Clinical features of CSD + PS are those of classical ToF. The right ventricular angiography establishes the diagnosis by demonstrating absent conal septum between the semilunar valves and very close approximation of the same valves. In young patients with this condition, withdrawal pressure tracings from the pulmonary artery to the right ventricle usually reveal those of valvular PS. The pulmonary artery trees of these cases are generally good for clinical ToF.

The morphology of CSD + PS is different from that of classical ToF. The conal septum is absent. Large ventricular septal defect (VSD) is subaortic as well as subpulmonary. The aortic valve considerably overrides the right ventricular cavity, because the right half of the right coronary cusp is upon the conal free wall of the right ventricular infundibulum. The rest of the right coronary cusp is just adjacent to the pulmonary cusp. The lower margin of the VSD is usually formed by a remnant of the membranous septum (total conus defect), and sometimes by a muscular ridge, which appears to be a remnant of the proximal conal septum (subtotal conus defect). The PS is due to a bicuspid stenotic valve with a small valve ring. In older cases, secondary hypertrophy of the infundibular free wall may contribute to PS. Embryogenesis of these cases appears to involve no development of the distal conal septum and anterior deviation of the proximal trucal septum (i.e., dextroposition of the aorta and a small pulmonary valve ring).

Before recognition of the morphology and morphogenesis, CSD + PS constituted a significant part of the surgical death of clinical ToF. However, with an improvement of the surgical relief of the PS, the death rate is decreasing.

Considering the prevalence of the subpulmonary VSD with dislocating aortic valve and aortic regurgitation in Japanese and probably in Chinese, 3 we might speculate that the development of the conal septum in Orientals may differ from that of the Caucasian. This is to be clarified in the future.

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References

Quantitating Left-to-Right Shunts

To the Editor:

We read with interest the article by Anderson, Jones and Sabiston entitled, Quantitation of left-to-right cardiac shunts
Strip Chart vs Polaroid Echocardiogram: Continued
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