Two-dimensional echocardiography morphometric study of tetralogy of Fallot

I read with great interest the recently published study by Gatzoulis et al. In their work, the authors have examined, by two-dimensional echocardiography, the morphology of the right ventricular outflow tract in 41 patients with tetralogy of Fallot compared with a group of 20 healthy controls and 15 patients with ventricular septal defect associated with malalignment of the outlet septum but no infundibular stenosis. This very interesting study by Gatzoulis et al. exactly corroborates the findings we described 14 years ago. In 1985, we detailed a modification of the outlet septum but no septal defect associated with malalignment of the outlet septum but no infundibular stenosis.

In another two-dimensional echocardiography geometric analysis

![Diagram](http://www.idealibrary.com)
study, we focused on the debated problem of overriding the aorta in tetralogy of Fallot re-discussed by Gatzoulis et al. in their paper. We demonstrated, based on very careful measurements, that the aorta is truly dextroposed in tetralogy of Fallot, with a rightward shift due to a clockwise rotation of the aortic root (looking downstream) around an excentric pivot represented by the anterior aortic commissure.

In addition to our own findings, Gatzoulis et al., based on their two-dimensional echocardiography analysis, found an inverse relationship between the degree of anterocephalad deviation of the outlet septum and the size of the pulmonary trunk in patients with tetralogy of Fallot, which suggests that this deviation is not only the morphogenetic essence of the tetrad but may also affect the growth of the pulmonary arteries. In our series of patients with tetralogy of Fallot, we did not attempt to measure the orifical diameter of the pulmonary valve or the diameter of the pulmonary trunk. From our original data, we can only show that there is a linear relationship between the degree of infundibular septum deviation measured by the angle \( \alpha \) and the degree of narrowing of the subpulmonary outflow tract. The second point made by the authors is the distinction between two proximal and distal components of the subpulmonary infundibulum which might have surgical implications in the opinion of the authors.

Thus, as we reported on a similar two-dimensional echocardiography morphometric study of tetralogy of Fallot previously, Gatzoulis and collaborators might have justly referred to our original work in their article.

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References


It was an oversight on our part not to cite the multiple contributions listed by Dr. Isaz as they further strengthened the validity of the concepts initially espoused by Becker and colleagues, and call into question the alternative hypothesis offered by Geva and associates. It is important, nonetheless, to note that it was the recognition of the significance of the free-standing subpulmonary infundibulum that was the most original observation in our latest study.

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