Preface

Tetralogy of Fallot is one of the most common congenital heart diseases producing cyanosis in neonates, young infants, and children. Since first clinical description of the anatomical components characteristic of this congenital anomaly by Louis Arthur Etienne Fallot in 1888, this anomaly has been recognized well by clinicians as the cause of cyanosis in children. Since recognition of morphology of this anomaly and clinical symptoms and signs produced by this congenital anomaly were well understood, several treatments had evolved for management of this lesion to prevent morbidity and death from chronic cyanosis. The notable palliation by creating systemic pulmonary artery shunt or the classic Blalock-Taussig shunt stood a test of time, and in neonates and young infants' systemic pulmonary artery connection is still used in its various modifications followed by total correction of this lesion. The pros and cons of different systemic pulmonary artery shunts are discussed briefly such that the reader is familiar with the different palliative shunt procedures. Currently, the complete correction of the lesion at the time of presentation is an established standard of care for this anomaly in order to decrease early and long-term morbidity and mortality. Total correction is not free from issues like arrhythmias, right ventricular dysfunction, and pulmonary insufficiency, which are encountered during the follow up resulting in late mortality and morbidity unless these

issues are addressed at the time of initial correction. Modifications in the techniques of repair are introduced in an attempt to preserve function of the pulmonary valve, prevention of ventricular dysfunction such that the morbidity and mortality of total surgical correction is reduced on a long term follow-up. This text deals with comprehensive analysis of these technical modifications offered for total surgical correction, which are tailored to the morphology of this anomaly. A brief discussion of the variants or associated anomalies of the tetralogy of Fallot and their management is also presented. A brief discussion of several diagnostic methods performed to identify this lesion is presented as well as patient management strategies which determine the surgical approach. In addition, this text deals with the postoperative care of the total surgical correction of this lesion and early and long term patient outcomes. Lastly, a brief introduction of normal anatomy of the structures which are altered, the morphology of this lesion, related pathophysiology, and clinical symptomatology are discussed for adequate understanding of this anomaly.

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