Late complications after tetralogy of Fallot repair

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AIM
Patients tetralogy of Fallot (TOF) repair during childhood are prone to develop late complications, as arrhythmias and right heart failure. Our aim was to describe the outcome of our cohort of adults patients.

MATERIALS AND METHODS:
Data from TOF patients seen at our centre’s adult congenital heart disease clinic between 2010-2011 was analyzed. Clinical, echocardiographic and/or CMR and cardioexercise testing were documented.

RESULTS:
There were 128 patients with median age 29 years (18-62). The mean age at first operation was 6.0 +/- 7 years and the mean postoperative follow-up duration was 23 +/- 6 years. All patients underwent TOF reconstruction, 17% with pulmonary valve homograft implant. At the last follow-up evaluation 60% of patients were asymptomatic (New York Heart Association class I.). One third of patients had cardioexercise testing, and the mean peak VO2 was 23 ml/kg/min. Echocardiography and/or CMR showed ≥ moderate right ventricular dysfunction in 25% and ≥ moderate pulmonary regurgitation in 74% of patients. History of arrhythmia requiring treatment was present in 20% of patients; patients over 40 were more likely to develop atrial arrhythmia. Fifteen percent of patients had PM/ICD; one patient had biventricular pacing. Four percent of all cohort was treated for heart failure.

CONCLUSION:
Late complications after TOF repair increase with aging. More commonly patients develop arrhythmia. Regular follow-up in congenital cardiac clinics is mandatory in this cohort of patients.