weaning and alive discharge are in table 1 Operations No. Successful closure Alive discharge Pulmonary Endarterectomy 15 15 12 Pulmonary Embolectomy 2 2 1 Heart Transplantation 2 1 1 Dissection of Aorta 2 1 1 CABG 2 1 1 CABG + Double valve replacement 1 1 0 the results of ECMO in the same type of operations is in table 2 Operation No. Successful Weaning Alive Discharge Pulmonary Endarterectomy 3 3 1 Pulmonary Embolectomy 2 1 1 Heart Transplantation 3 1 0 CABG 3 1 0 Although the No. of patients in this study is not very much, and also there is no clinical trial, but the results showed that in opened chest patients there is 47% survival versus 21% survival in ECMO patients.
This study may indicate that the more complicate the therapeutic procedures, the more possibility of morbidity and mortality.

First Experience of ECMO in Iran
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Extra Corporeal Membrane Oxygenation (ECMO) although is a routine management of temporary circulatory or respiratory failure in the western countries, but due to high cost was not applicable in our country.
In a tertiary center with high load of patients with respiratory failure and also an active heart and lung transplant program, this program was started since 1386, but became active from 1390. From Farvardin 1386 till Day 1393, 40 patients were undergone ECMO. The mean ages of the patients were 28.77 ±21 (Max. 68 and Min. 3) and the duration of ECMO was 42.92 ±3.67 hours. Successful weaning of ECMO was in 29 cases (72.5%), but alive discharges were in 20 cases (50%). ECMO were used in Alveolar Proteinosis (12), Lung transplant (11), ARDS (8), Post heart transplant (3), Post Pulmonary Embolectomy (1), Post Pulmonary Endarterectomy (3), and Post CABG (3).
It was most effective in Alveolar Proteinosis and lung transplant patients and least effective in ARDS, Post heart transplant and Post CABG patients. The cause of failure in those patients may be late application of ECMO. The cause of mortality in alive patients after successful weaning of ECMO was Sepsis and multiorgan failure and in one the heart transplant patients were rejection.

Electrophysiologc Study and Ablation in Children, the State of the Art
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Interventional electrophysiology (EP) procedures are approved for treating some types of arrhythmia. The method is available and routine for adult patients in numerous cardiology centers worldwide. For children, however, interventional EP procedures are more restricted both because of the technique and the nature of pediatric arrhythmias. So, pediatric EP procedures only done in few tertiary centers worldwide.
In Iran, since 2010 we started the first national academic center for pediatric arrhythmia. Many hundred pediatric patients including infants and neonates were managed and treated in Rajaie Cardiovascular Medical and Research Center. Of them several cases had complex cardiac lesions and some had rare types of arrhythmia. We had several reports and publications based on our experience in medical literature. Hereby I will talk about the tips, tricks, and results of pediatric EP procedures

Evaluation of the Cardiac Function by MRI in Children
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Rajaie Medical & Research Center, Iran University of Medical Science, Tehran, IranThe diagnosis of an enlarged or hypertrophied heart has important implications for the treatment of children with congenital or acquired heart disease. To this end, cardiac MRI has evolved as an important noninvasive diagnostic tool, particularly in the noninvasive quantitative assessment of the right ventricle.
Cardiac MRI is generally considered the reference standard for the assessment of ventricular dimensions, function, and mass in terms of accuracy and reproducibility, and this is reflected by class I–II recommendations for the clinical use of cardiac MRI by recent consensus panels. However, a general problem in the interpretation of such data is the fact that cardiac growth is known to be allometric, that is, the relation between the size of the heart and the body changes from infancy to adulthood .Moreover, such allometric growth is likely to be different between the sexes.
This renders any age group definition somewhat arbitrary because sex differences in the speed of maturation and cardiac growth are not accounted for, thus limiting the scientific and clinical value of age group– based reference data. The relation between the size of the heart and the body is known to be allometric, which means that this relation changes from infancy to adulthood. This makes the generation of normative data challenging. However, the ability to accurately measure volumetric and mass parameters of right and left ventricular function, adequately scaled to body size, is of critical importance both for clinical care and for cardiovascular health research.
Comparison between axial and short-axis volumetry demonstrated no relevant differences, as reported by Jauhiainen et al and in contrast to Alfakih et al, who found short-axis volumes of the right ventricle to be larger in adult volunteers. Axial acquisition had the advantage of allowing for additional phasic volumetry of the atria for further studies and has also recently be reported to be more reproducible than short-axis slices for ventricular volumetry in patients with corrected tetralogy of Fallot.