Gaslini

CARDIOLOGY

In this Unit we carry out the most modern activities for the diagnosis and the non-surgical therapies within the prenatal, neonatal and paediatric fields. Moreover we treat children with acquired heart diseases and systemic diseases with cardiac involvement. We manage patients with grown-up congenital heart (GUCH) diseases that may or may not have been operated during infancy.

These activities include:

- Prenatal Cardiology: early prenatal diagnosis (starting from the 16/17 week of gestational age or even earlier in specific cases) of congenital heart diseases or anomalies of the heart rhythm with foetal echocardiography and counselling about treatment options. Ongoing screening and care for mothers carrying babies with a confirmed or suspected congenital cardiac anomaly. Foetal MRI application for specific cardiac diseases. Prenatal discussion in a multidisciplinary team of Fetal and Perinatal Medicine (OB/Gyn, Neonatal and Pediatric ICU, Neonatology, Cardiology, Cardiac Surgery, Fetal and Perinatal Pathology, Genetics) to define successful perinatal care pathways of every complex case of CHD. Fetal interventional procedures for selected CHDs (aortic or pulmonary stenosis, hypoplastic left heart syndrome with restrictive or intact interatrial septum).
- Global Clinical evaluation of the needs of the new-born, the child and the young adult that suffer from both cardiac and cardiovascular pathology. We include psychological consulting to the patient and his/her family
- Functional cardiology of the premature newborn
- Paediatric consulting activities that include instrumental tests for patients with haematological, oncological, nephrological, metabolic, orthopaedic, surgical, pneumological, infectious, neurological (including ischemic cerebrovascular disease due to paradoxical emobolism) and neurosurgical diseases...
- GUCH (Grown-up Congenital Heart Disease) Unit: regional reference centre for diagnostic evaluation, treatment and follow-up of adult patients with congenital heart disease; the GUCH Unit is integrated in a multicentre network for GUCH patients care, including ASL3 and ICLAS in order to provide the best available solution for each single patient
- Echocardiography: mono and bidimensional echocardiography, Color Doppler, tissue Color Doppler, eco-stress, advanced functional echocardiographic assessment (including speckle-tracking and strain analysis), transoesophageal echocardiography, three-dimensional echocardiography
- Advanced Cardiovascular Imaging: Cardiac Magnetic Resonace Imaging (CMR), stress-CMR, and cardiac Computed Tomography, in collaboration with the Radiology Unit
- Cardiac Arrhythymias and syncope ambulatory: diagnosis, treatment and follow-up. Electrocardiogram (EKG), Holter EKG, Remote EKG Recording and remote pace-maker (PM) interrogation, transesophageal electrophysiologic studies, Tilt Test.
- Invasive Electrophysiology: diagnostic and therapeutic invasive studies with radiofrequency ablation of accessory pathways and ectopic focus; implantation, replacement and check of PM, implantable cardioverter Defibrillator (ICD) and cardiac resynchronisation therapy device (CRT)

CARDIOLOGY

- Exercise and Sport Cardiology: cardiopulmonary exercise test, pulmonary function test, diffusing capacity of lung for carbon monoxide (DLCO), comprehensive functional evaluation of patients with congenital and acquired heart diseases.
- Invasive Cardiology: diagnostic cardiac catheterization with full morphologic and hemodynamic assessment, and pharmacologic test to evaluate therapeutic efficacy in particular pathological conditions such as pulmonary hypertension. Interventional cardiac catheterization, including pulmonary and aortic valvuloplasty and angioplasty; revascularization of occluded vessels and radiofrequency perforation of atretic pulmonary valves; stent implantation; abnormal vessels embolization by coils or devices and closure of atrial septal defects, ventricular septal defects, patent ductus arteriosus, arterio-venous fistulae, coronary fistulae, transcatheter pulmonary valve implantation or replacement.
- Educational activities in the framework of the Degree in Medicine and Surgery, the School of specialization in Paediatrics, the School of specialization in Cardiology and the School of Nursing Sciences of the University of Genoa.

Director

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