

# 27<sup>th</sup> European Cardiology Conference

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## Gheorghe Cerin

San Gaudenzio Clinic, Italy

### Transthoracic echo in aortic stenosis: From clinics to operating theater

Aortic stenosis (AS) has become the most common primary heart valve disease, being an important cause of cardiovascular morbidity and mortality. In Europe and North America AS is the most common primary valve disease needing surgery or catheter intervention. Due to the ageing of population the prevalence of moderate to severe degenerative AS increased, overcoming  $\approx 4\%$  in patients over 75 years of age. Around 12% of patients at this age, may have AS of various degree. Echocardiography is the key tool for the diagnosis and evaluation of AS and is the primary noninvasive imaging method for assessment. The guidelines provide clear recommendations for recording and measurement of AS severity using echo. Several echo criteria define a severe AS: an aortic valve area  $< 1\text{cm}^2$ , a mean G  $> 40\text{mmHg}$  and a maximum jet velocity  $> 4\text{m/s}$ . However, although accurate quantification of disease severity is an essential step in patient management, clinical decision-making depends on several other factors, most importantly, whether or not symptoms are present. Nevertheless, due to ageing of patients either the natural history of AS and the clinical presentation of patients, changed. Early clinical features may be often non-specific, with palpitations, dizziness, fatigue. Moreover, some people may be unaware of gradual decline in their exercise capacity. That way the role of other echocardiographic method is presented and discussed, from dobutamine stress echocardiography in case of low flow - low gradient AS (to differentiate a true severe AS against a pseudo-severe AS), till physical stress echocardiography, in asymptomatic patients with severe AS. Additionally, the role of other method of diagnosis as MSCT and CMR are presented.

### Biography

Gheorghe Cerin, Fellow of European Society of Cardiology and Head of the Cardiology and Internal Medicine Grouping, Cardiac Surgery Dpt, San Gaudenzio Clinic, 'Policlinico di Monza' Hospital Group, Italy. Senior Consultant Cardiologist at the Cardiovascular Center, Monza Hospital, Bucharest, Romania. President of the Association of Romanian Doctors in Italy. He has an outstanding experience in clinical cardiology and internal medicine, daily connected in the last 25 years to perioperative management of the patients candidate to open heart surgery. He has vast experience in the field of echocardiography as tool in perioperative assessment and management of patients candidates to cardiac surgery: more than 35 years of experience in echocardiography – the last 25 years as echocardiographer in cardiac surgery. Specific expertise in mitral valve diseases and generally in echocardiography for valves repair surgery. He is the Lecturer and chairman in various international meetings in cardiology, cardiac surgery and echocardiography. Since 1994 he has been working as a tutor and organizer of training programs in cardiology and cardiac surgery in Italy for the Italian, Romanian, Moldavian, Georgian and Polish doctors. Since 2010 he is the promotor of the live streaming sessions in cardiac surgery and echocardiography either in Italy or Romania, as tool and novel modality of tele-learning programs in cardiology and echocardiography (more than 40 live sessions from the operating room to the congress halls abroad in Europe as Austria, Spain, Romania, Moldavia, Turkey, Georgia, Poland). He has been granted by Diploma and gold medal the Romanian Scientists Academy (Oct 2007) for "outstanding contributions in the collaboration with Romania in the field of Cardiology, Cardiovascular Surgery and training young specialists".