

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

October 22-24, 2018 | Rome, Italy



## Marco Diena

*Clinica San Gaudenzio, Italy*

## Gheorghe Cerin

*San Gaudenzio Clinic, Italy*

### Up to 100% mitral valve repair through minithoracotomy: A simplified technique for a complex disease

**Objective:** Despite clear data proving that the operation of choice in degenerative mitral regurgitation (DMR) is the mitral valve repair (MVR), mitral plasty rate remains suboptimal for different reasons. First: challenge in case of prolapse of both leaflets (BLP), second: difficulties to work through small incisions, third: need of a perfect echo assessment of each scallop. The purpose of this study was to assess the feasibility of a single orifice MVR in patient with pure mitral regurgitation (MR), via a right minithoracotomy (RMiniT).

**Methods:** From 09.2010 to 09.2017 296pts (male 70%, age 56.3+12.0y) with DMR were operated via RMiniT. Preoperative EF was 61+7.2; 92% of pts were in NYHA 2 and 7% in NYHA 3&4. Preoperative mean pulmonary systolic pressure was 29+8.6mmHg. At Echo 41% of pts presented BLP. Mean MV diameter was 43.3+4.3mm. A simplified surgical approach was used: Percutaneous single femoral venous and a direct aortic cannulation, direct aortic cross clamping (AoCC) and antegrade Custodiol cardioplegia. Usually a triangular resection for posterior leaflet and PTFE artificial chordae for the anterior leaflet was performed. All patients received a complete prosthetic ring.

**Results:** In hospital mortality was 0.7%. The success rate of repair was 100% with 2% of patients needing a second pump run. The mean AoCC was 72+17min. Completeness of FUP was 90% with a mean period of 5.6+2y. Late mortality was 2.6%, with 0.8% cardiac related death. Reoperation for residual MR was performed in 1.8%. Cardiac related rehospitalisation was 2.3%.

**Conclusion:** MVR in DMR is feasible up to 100% of patients through RMiniT with the single orifice technique, even in complex anatomy as Barlow disease. This simplified technique enhances the probability of MVR and reduce the ischemic time. A proper training is needed and an optimal valve assessment mandatory to achieve good results in this challenging approach.

#### Recent Publications:

1. euroecho 2017, lisbona. mitral valve annulus-circumflex artery distance assessed by msct and tee. may echocardiography minimize the risk of circumflex artery injury? d. botezatu, l. samman, e. novelli, f. armienti, d. benea, m. diena, g. martinelli, t. khouri, g. cerin
2. 19 Aprile 2017, Direttore del Corso ECM: Dott. Marco Diena: Cardiopatia ischemica e insufficienza mitralica,- 10,4 Crediti formativi e 13 crediti SIEC, Auditorio Clinica San Gaudenzio, Novara "Chirurgia della mitrale ischemica: tecniche, timing e risultati Cardioteam": Live in box cases, M Diena
3. 14 Giugno 2017, Direttore del Corso ECM: Dott. Marco Diena: Trattamento della patologia aneurismatica aortica, 8 Crediti formativi, Auditorio Clinica San Gaudenzio, Novara, Live in a box case. Collegamento streaming con Romania e Moldavia,
4. 6 dicembre 2017 Direttore del Corso ECM: Dott. Marco Diena - Update nel trattamento del paziente mitralico a 360° Novara; 4 Crediti formativi, Auditorio Clinica San Gaudenzio, Novara Live in a box case. Collegamento streaming con Italia, Romania e Moldavia, Chairman: Dott. Marco Diena; "La terapia chirurgica nell'insufficienza mitralica degenerativa" Live in Box. Dott Marco Diena

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

October 22-24, 2018 | Rome, Italy

## Biography

Dr. Marco Diena, graduated in Medicine and Surgery from University of Turin. In 1990, at the age of 30, he was a cardiac surgeon's assistant at the Hospital of S. Donato Milanese. He is a founding member together with other doctors of the Cardiopathic Children 's Association in the World who works in developing countries to treat indigent cardiac patients. In April 2001 he introduced robotic surgery in Piedmont , directed the two-monthly courses in robotic surgery at the Pinna Pintor nursing home, having perfected himself in robotic surgery in Brussels, Leipzig and Dresden. For 15 years he has been director of the "Cardioteam. Since 2002 he has directed the Cardiosurgery Division of the San Gaudenzio Nursing Home in Novara. In 2008 he was, together with a group of colleagues, founder of the Cardioteam Foundation Onlus , of which he is still the President. In 2014, together with the staff of the Foundation, he promoted the free Cardiovascular Prevention Campaign called screening of the aorta ahead ascending .

## Notes: