

# IN-HOSPITAL OUTCOME POST-SURGICAL INTERVENTIONS IN PATIENTS WITH ISCHEMIC MITRAL REGURGITATION. INSIGHTS FROM POLISH ISCHEMIC MITRAL REGURGITATION REGISTRY-PIMAR

Andrzej Kubicius<sup>1</sup>, Tomasz Kukulski<sup>1</sup>, Tomasz Niklewski<sup>2</sup>, Roman Przybylski<sup>2</sup>, Krzysztof Mokrzycki<sup>3</sup>, Maigorzata Winter<sup>4</sup>, Kazimierz Widenka, Zbigniew Kalarus<sup>1</sup>, Marian Zembala<sup>2</sup>

<sup>1</sup> *Dpt of Cardiology, Congenital Heart Disease and Electrotherapy, Silesian Center for heart Disease, Zabrze Poland;*

<sup>2</sup> *Dpt of Cardiac Surgery and Transplantology, Silesian Center for heart Disease, Zabrze Poland;*

<sup>3</sup> *Pomeranian Medical University, Szczecin, Poland;*

<sup>4</sup> *Lower Silesia Heart Disease Center, Wroclaw, Poland;*

<sup>5</sup> *County Hospital-Dept of Cardiosurgery, Rzeszow, Poland*

**OBJECTIVE:** Despite of ruling official standards and recommendations a substantial inconsistency exists in terms of surgical management of patients with moderate ischemic mitral regurgitation (MR) and the data on outcome in this group are scarce. Clinical registries provide real life clinical data, thus reflecting agreement between current recommendation and clinical practice.

**METHODS:** Between years 2007 and 2010, 476 patients with CAD, functional mitral regurgitation referred for surgical intervention to one of the fourteen participating cardiosurgery centers were enrolled into PIMAR registry. The inclusion criteria comprised of procedural and echo criteria. Procedural criteria were as follow: performance of CABG, CABG+MVplasty, CABG+MVR, CABG+SVR, CABG+SVR+MVplasty. Echo criteria included: mild, moderate or severe chronic mitral regurgitation or any MR with color jet area  $> 3 \text{ cm}^2$  (4ch view). Baseline digital echo data were submitted to echo core lab for systematic quantification.

**RESULTS:** 476 pts (mean age 64y, BMI 27, 67% males), enrolled into registry received surgical treatment: CABG was performed in 93% of pts, mitral valvuloplasty including restrictive annuloplasty (RMA) in 67%, mitral valve replacement in 7% and surgical ventricular restoration in 6% of pts. Previous myocardial infarction was documented in 72% of patients. Patients were divided into 3 subgroups: I- mild MR (ERO $<0,1 \text{ cm}^2$ ), II- moderate MR (ERO 0,1-0,2  $\text{cm}^2$ ) and III-severe MR (ERO $>0,2 \text{ cm}^2$ ). There was no significant difference between subgroups regarding LVEF ( I:  $46,3 \pm 13,6\%$ ; II:  $49,5 \pm 12,5\%$ ;

III:  $47,4 \pm 14\%$ ), NYHA class (I:  $1,82 \pm 0,77$ ; II:  $1,75 \pm 1,1$ ; III:  $1,98 \pm 0,81$ ) and diabetes t.2 (I: 27%; II: 45%; III: 45%), all p=NS. Severity of ischemia by CCS class was significantly different between subgroups. (I:  $2,32 \pm 0,81$ ; II:  $2,44 \pm 0,95$ ; III:  $1,96 \pm 0,85$ ; ANOVA p= 0.004) as well as renal failure occurrence: (I: 1,1%; II: 0,2%; III: 9,4%; ANOVA p= 0.01) The 30 days mortality was as follow: I: 2,3%; II: 12.1%; III: 1,9%; ANOVA p=0.01

**CONCLUSION:** The highest in-hospital mortality was found in a subgroup of patients with moderate MR. CCS class but not renal failure was associated with poor early outcome. Severity of coronary symptoms may reflect ongoing ischemia and compromised LV function, thus leading to worse outcome.