Acute and mid term clinical outcomes in octogenarians referred for PCI. Real world Canadian experience.

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Background: The optimal management of coronary artery disease in the elderly population is challenging. This group of patients is excluded from clinical trials and usually treated in a conservative manner. Therefore, we aim to evaluate the clinical outcomes of octogenarians referred for PCI in a university hospital center.

Methods: Between January 2013 and September 2013, 2967 consecutive patients underwent coronary angiogram. A medical chart review was performed and data obtained from clinical and angiographical records. The long term follow-up was obtained by clinical visits or telephone contact.

Results: Octogenarians represented 8.5% (n=250). Forty seven (19%) requested surgical treatment for CABG and/or valve replacement. Medical treatment was decided in 55 patients (22%). PCI was the most common treatment and was performed in 148 patients (59%). The mean follow-up period was 295 ±115 days. The mean age was 85±3 years, 49% females, hypertension was present in 85%, diabetes in 36%, dyslipidemia in 62%, smoker in 21%, previous history of PCI in 21%, previous CABG in 13%, atrial fibrillation in 9% and renal failure in 25%. The indication of PCI was mainly ACS (90%). Single vessel disease was noted in 43% of patients, double and triple vessel disease in 31% and 26% respectively. The mean syntax score was 14±9. Procedural success was achieved in 99% of cases. A single stent was used in 55%. DES was implanted in 38% of patients. The in-hospital MACE rate was 7 % (all cause mortality 5%, MI 2% with no stroke or TVR). The long term follow-up was achieved in 142 patients (96%). The MACE rate was 20% (all cause mortality 11%, MI 2%, stroke 1% and TVR 6%). A subgroup analysis of patients older than 85 years (group A, n=81) showed a higher rate of HTN (90% vs. 78%; p=0.042), dyslipidemia (73% vs. 49%; p=0.004), previous CABG (20 % vs. 5%; p=0.006) and triple vessel disease (33% vs.16%; p=0.023) as compared to patients younger than 85 years (group B, n=67) respectively. A trend toward a high rate of in-hospital death was observed in group A as compared to group B (5% vs. 0%; p=0.063). No significant difference was observed regarding in-hospital MI, stroke or TLR.

Conclusion: In this selected octogenarian population referred for an invasive approach, PCI was safely performed with good acute and mid term clinical outcome. More clinical trials in this high risk group of patients are warranted.

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