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STENTING IN SMALL CORONARY ARTERIES: INITIAL EXPERIENCE WITH THE GIANTURCO-ROUBIN II STENT

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Small calibre coronary arteries are associated with a high incidence of restenosis following angioplasty. Although stenting in vessels ≥3mm in diameter has been shown to reduce restenosis, stenting in vessels <3mm is seldom practised because of a high incidence of stent thrombosis. Due to a combination of smaller statue and late presentation, Chinese often have disease in smaller arteries or diffuse disease involving distal segments with smaller calibre. This study reports our experience with the Gianturco-Roubin II (GRII) stent in coronary vessels ≤3.0mm in size. From January 1996 to November 1996, 39 GRII stents were deployed in 31 patients. The mean age was 63 ± 9 years. There were 12 female and 19 male. A total of 37 vessel segments were stented. This included the left anterior descending in 13, left circumflex in 6, and right coronary artery in 18. The diameter was ≤3.0mm in 31/39 stents deployed (2.5mm in 17, 3.0mm in 14). The lengths of the stent deployed were 20mm in 37, 40mm in 2. The stents were successfully deployed in all lesions attempted. Procedural success [defined as angiographic success without death, Q wave myocardial infarction (Q-MI) or requirement for surgery] was achieved in 30/31 patients (97%). There was one Q-MI (3%). There were no death nor requirement for surgery. The median hospital stay post-PTCA was 1 day (mean 3.0 ± 3.3). No anti-coagulation was given post-stenting and all patients were discharged uneventfully. At a mean follow-up of 5 ± 2 months, 25/31 patients (81%) remained angina free. Conclusions: The GRII stent is extremely trackable and can be deployed in the majority of vessels, including distal segments of tortuous arteries. Despite deployment in vessels ≤3.0mm, no anti-coagulation is required and patients can be discharged the following day. Although angiographic follow-up is pending, clinical follow-up up-to-date suggests a small restenosis rate of 19%, comparable to that expected from stenting in larger arteries.

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DETERMINANTS OF SUCCESSFUL RADIOFREQUENCY CATHETER ATRIOVENTRICULAR NODAL MODIFICATION IN PATIENTS WITH ATRIOVENTRICULAR NODAL REENTRY TACHYCARDIA

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Background: Atrioventricular nodal reentry tachycardia is a common cause of supraventricular tachycardia. Radiofrequency catheter AV nodal modification offers a chance of definitive cure to these patients. Two approaches are possible : the anterior fast pathway approach and the infero-posterior slow pathway approach. The anterior approach carries a higher risk of AV nodal injury. We use the slow pathway approach in our studies.

Methodology: Intracardiac electrograms were obtained from quadripolar electrodes positioned in the high right atrium, the His bundle, the coronary sinus (for which a decapolar electrode catheter was used) and the right ventricle. A 4mm head steerable 2-5-2 mm spacing quadripolar electrode catheter was used for mapping and ablation. The ablation catheter was positioned at a point posterior to a horizontal line joining the coronary sinus os and the tricuspid valve annulus as visualized in the left anterior oblique projection. We aimed to look for fractionated atrial electrogram and a Atrial to Ventricular electrogram ratio of less than 1 to 3. RF energy was delivered stepwise and guided by the occurrence of junctional beats.

Results: We analyse the results of 14 patients undergoing the RFA procedure. All patients had a successful procedure as documented by intraoperative non- induction or the ablation of the slow pathway. Fractionated electrogram was present in 3 of the patients. A Atrial to Ventricular ratio of less than 0.25 was present in 11 of our patients.

Conclusion: We find a smaller A to V ratio in our patients with successful *episodes* of RFA. The incidence of fractionated electrograms is also not high. A lower A / V ratio is registered in our series and we find this position more catheter stable and theoretically less likely to cause AV nodal injury.