

received BVS, 4 (7.4%) of them were multiple. 3 patients received 2 scaffolds in 2 vessels while 1 patient received 2 scaffolds in the same vessel. The mean age was 57.3 ± 9.7 years. The location of the lesions was LAD (32), LCx (11) and RCA (14). The length of devices most frequently used included 18 mm (29), 28 mm (28) and 38 mm (1). Procedural success was obtained in 53 cases. The diameter of devices most frequently used included 2.5 mm (27), 3.0 mm (22) and 3.5 mm (9). One patient had a slow flow phenomenon (final TIMI flow 2). At 6-month follow-up, one late stent thrombosis was reported in one patient 60 days after PCI requiring re-PCI.

Conclusions: BVS implantation can be successfully performed with a high procedural success rate and encouraging midterm outcomes. Larger randomized trials and longer follow-up are needed to access the potential clinical benefit of BVS versus new generation DES as these results are from a single center.

Clinical, angiographic profile and endovascular management of Takayasu's arteritis – Single center prospective study



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Objective: Aim of the study was to evaluate demographic, clinical, angiographic profile and endovascular management of Takayasu's arteritis.

Background: Takayasu's arteritis is a chronic inflammatory vasculitis affecting the aorta and its major branches. Although it is more prevalent in Asia, the distribution of the disease is worldwide with different vascular involvement patterns and clinical manifestations.

Methods: In this prospective study, a total of 50 consecutive patients who were reported as having Takayasu's arteritis between January 2010 and April 2014 were evaluated. Detailed demographic profile, clinical presentation, and angiograms of all patients were analyzed.

Results: A total of 50 patients were analyzed during study period. Among 50 patients, 43 (86%) were female and 7 (14%) were male. Average age of presentation was 26.92 years. Most common clinical presentation was claudication (74%) followed by, musculoskeletal symptoms (48%), fatigue (46%), weight loss (22%), headache (22%), visual disturbances (16%), syncope (10%), and dyspnea (20%). Most common features were absent/diminished pulses (80%), difference in blood pressure (80%), followed by bruit (70%) hypertension (64%), cerebrovascular accident (8%), heart failure (8%) and aortic regurgitation (4%). According to the new angiographic classification, angiographic type I (40%) was encountered most frequently, followed by type III (30%), type V (16%), type IIb (8%), type IIa (2%), and type IV was (4%). Angioplasty was the main stay of treatment in 66% of the patients, remaining 34% of them were treated medically either with corticosteroids or methotrexate.

Conclusion: Takayasu's arteritis is a rare disease, affects mainly women, manifestations range from asymptomatic disease, found as a result of impalpable pulses or bruits, to catastrophic neurological impairment. TA is the common cause of renovascular hypertension. Angiography remains the gold standard for diagnosis. Angiographic evaluation and percutaneous transluminal angioplasty with stenting is useful in selected cases.

Mesenteric artery stenosis presenting as severe erosive gastroduodenitis: A rare case report with long-term follow-up



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Superior mesenteric artery ischemia is a rare condition with serious clinical consequences. It may be caused by either mechanical or non mechanical obstruction of the artery. These patients usually present with recurrent abdominal pain usually occurring after meals. We report a 45-yr male patient presented with pain abdomen and epigastric burning sensation, which increases with food consumption since 6 months. Patient was evaluated and was found to have severe erosive gastroduodenitis and was secondary to superior mesenteric artery stenosis diagnosed on CT Abdomen. Patient underwent successful SMA stenting. Repeat upper GI endoscopy during follow-up after 1 month showed complete resolution of the duodenal mucosa and symptom free clinically.

Background: Superior mesenteric artery arises from abdominal aorta distal to celiac trunk. Superior mesenteric artery ischemia is a rare condition with serious clinical consequences. It may be caused by either mechanical or non-mechanical obstruction of the artery. Atherosclerotic mesenteric stenoses usually are focal and most often located at the ostium or the proximal portion of these vessels. These patients usually present with recurrent abdominal pain usually occurring after meals. Therapeutic options include surgical reconstruction and percutaneous transluminal angioplasty with or without stenting.

Case report: We report a case of 45-yr-old gentleman who came with complaints of epigastric burning sensation and pain in upper abdomen which increased after consumption of food since 6 months. He had consulted some clinics for his problem and was advised antacids but was not relieved. He even underwent cardiac evaluation for postprandial angina, which was normal. He was subjected to upper GI endoscopy, which showed erosive gastroduodenitis. He was continued with antacids and proton pump inhibitors. Since his symptoms continued to worsen, he consulted a multispecialty hospital. He underwent repeat upper GI endoscopy, which showed worsening of the erosive Gastroduodenitis (Fig. 1). The cause of which was suspected to be of ischemic origin. He was subjected to CT Abdomen, which showed superior mesenteric artery occlusion (Fig. 2). He was referred to our institute for further management. Through right femoral artery approach, abdominal aortic angiogram was done which showed total occlusion of SMA in its ostioproximal segment. A 6F selective SIM lateral guiding catheter and pilot PTA guide wire was used. Lesion was predilated followed by stenting with 7 mm \times 29 mm GENESIS peripheral stent, which was deployed at 6 ATM (Fig. 3). Patient was discharged on 3rd day in a stable state. On one-month follow-up, he was asymptomatic and his upper GI endoscopy showed healing of the mucosal erosions and also CT abdomen (Fig. 4) showed patent stented segment. His 2 yrs follow-up with upper GI endoscopy showed normal gastroduodenal mucosa (Fig. 5).

Discussion: The superior mesenteric artery (SMA) arises from the anterior surface of the abdominal aorta, 1 cm below the celiac trunk and is at the lower border of the L1 vertebra in an adult. It supplies the intestine from the lower part of the duodenum through two-thirds of the transverse colon, as well as the pancreas. Mesenteric artery stenosis is a common finding in the elderly patients with atherosclerotic disease, with a prevalence of 17.5% in patients aged 65 yrs and above.¹ Atherosclerotic mesenteric stenosis usually are focal and most often are located at the ostium or ostioproximal segments of these vessels.² Symptoms being

recurrent, debilitating abdominal pain, usually occurring within the first hour after meals. Hence its been also referred to as intestinal angina.³ This is due to insufficient visceral blood flow during periods of heightened intestinal demands.⁴ Therapeutic options include surgical reconstruction and percutaneous transluminal angioplasty (PTA) with or without stent placement.⁵ PTA has become an alternative to surgery in many high risk surgical patients. The procedural and clinical success rate of PTA has been reported to be greater than 80% and 75%, respectively.⁶⁻⁸ In PTA without stenting, restenosis of the dilated artery and recurrence of symptoms occur in 17–50% of patients within the first year.⁶⁻⁸ This reduces the efficacy and durability of balloon angioplasty. Matsumoto et al. reported from his case series comparing PTA with and without stenting, that PTA with stenting was associated with lower incidence of complications and a higher technical and clinical success rate.⁹ We report our patient who was initially diagnosed as a case of acid peptic disease (APD) and later as postprandial angina secondary to coronary ischemia. Our patient actually had SMA stenosis and occlusion presenting as APD and postprandial angina. Patient successfully underwent PTA with stenting with dramatic improvement. His 2 yrs follow-up with upper GI endoscopy showed normal gastroduodenal mucosa.

Conclusion: SMA stenosis, a rare condition, presents as recurrent abdominal pain with postprandial angina, should be carefully considered because of its serious clinical consequences. PTA with stenting has been considered as a safe and effective treatment alternative to surgery.

Comparing efficacy of antiplatelet agents in PCI patients heterozygous to CYP2C19*2/*3 mutations



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Introduction: Clopidogrel is the most common, cost effective medication available for patients undergoing PCI. But variations in CYP2C19 has been associated in decreased metabolism of this drug leading to MACE. The other anti-platelet drugs considered in such situations include Prasugrel and Ticagrelor, which are highly efficient when compared to Clopidogrel but are sometimes associated with bleeding and Ticagrelor is expensive. CYP2C19*2/*3 is the most common, loss of function mutation in this gene, which reduces its activity and hence low metabolism of Clopidogrel. Patients heterozygous to anyone of these SNPs have to be put on alternative treatment regime, which included Prasugrel and Ticagrelor or higher doses of Clopidogrel.

Objective: To evaluate the efficiency of Clopidogrel (75 mg), Prasugrel (10 mg) and Ticagrelor (90 mg) in PCI patients heterozygous for CYP2C19*2/*3.

Methodology: A total of 20 patients who have undergone PCI and heterozygous for CYP2C19*2 and CYP2C19*3 variations were recruited from Sri Balaji Hospital, Chrompet after obtaining written informed consent. The patients were randomly categorized into 3 regimens: double dose Clopidogrel (75 mg), Prasugrel (10 mg), and Ticagrelor (90 mg). Each group has 8, 8, and 4 patients, respectively. The efficacy of these drugs was evaluated by platelet response array using FACS. Based on platelet reactivity index (PRI), they were classified as normal (<50), borderline, or poor (>50) response.

Results: Of the 8 patients who had Clopidogrel (75 mg), two had borderline response and the rest 6 had poor response, and of the 8 patients, who were on Prasugrel (10 mg), two had borderline

and 6 had good response. The 4 patients on Ticagrelor had good response.

Conclusion: Evaluation of the efficacy of these three anti-platelet drugs in the heterozygous group of CYP2C19*2/*3 showed Ticagrelor is highly efficient in preventing platelet aggregation followed by Prasugrel in our cohort. Patients on double dose Clopidogrel have high residual platelet reactivity.

Incidence of mace with genotype test guided antiplatelet treatment strategy after PCI



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Back ground: Clopidogrel is an prodrug that requires hepatic bioactivation by several enzymes including CYP2C19. Clopidogrel, which is currently the mainstay of management after PCI, fails in certain group of individuals, as they are unable to metabolize the drug. Variations in the gene CYP2C19 has been associated with poor metabolism of clopidogrel and hence mace

Methods: A total of 151 patients who have undergone PCI were recruited from our institution after obtaining written informed consent. Salivary samples from patients were genotyped for CYP2C19*2, CYP2C19*3 variations by sequencing method (GAAP X METHOD). Dual antiplatelets were given based on genotype information.

Results: Based on their genotyping result for CYP2C19*2 and CYP2C19*3, patients were categorized into 3 groups – normal (GG,GG), intermediate (AG), and poor (homozygous variant AA). Percentage of individuals in each group was 29, 52, and 19, respectively. Poor metabolizers were given newer agents (Prasugrel or Ticagrelor). Intermediate metabolizers were given newer agents or double dose clopidogrel. Out of 151 patients followed-up for 6 months, only 3 patients (1.5%) were admitted with myocardial infarction (troponin positive). They all underwent CAG – one patient had stent thrombosis. He was not compliant with anti-platelets. Other two had lesions in non-culprit vessels with patent stents.

Conclusion: Major adverse coronary events after PCI were brought down significantly by genotyping individuals. Genotype may be relevant for choosing appropriate dual antiplatelet therapy in patients undergoing PCI.

Direct deployment of Absorb™ bioresorbable vascular scaffold (BVS) without predilatation in the culprit lesion during trans-radial primary angioplasty – Direct Absorb pilot study



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Absorb biodegradable biovascular scaffold (BVS) is a relatively new device in the management of coronary artery disease. Initially, BVS was studied in chronic stable lesions. There is emerging data on its usage in acute coronary syndrome lesion. The manufacturer advocates 5 Ps during deployment of the scaffold (proper sizing, predilatation, pay attention to expansion limit, post dilation with