

## Do evidence practice gaps exist for medication prescription at hospital discharge in patients undergoing coronary artery bypass and coronary angioplasty

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**Background:** Adherence to guideline directed medical therapy (GDMT) although mandatory after CABG & percutaneous coronary intervention (PCI), is often sub-optimal at hospital discharge. Since relevant data are lacking from our country, we performed a retrospective analysis of medication advice following CABG and PCI from 2010-2013.

**Methods:** A total of 5258 records (PCI/CABG:86.2vs13.8%) were studied.

**Results:** Presentation with stable angina was commoner in CABG group (61.4 vs 39.4%,  $p < 0.001$ ) while ACS was more in PCI group (61.6 vs 38.9%  $p < 0.001$ ). Prescription rates for dual anti-platelets (aspirin 100% vs 99%, clopidogrel 100% vs 96.9%), beta blockers (98.4% vs 93.7%) and statins (99.1% vs 90.9%) were similar in PCI & CABG groups. ACE inhibitors (94.2% vs 47.2%) & nitrates (58.2% vs 0.8%, both  $p < 0.001$ ) were prescribed more often post-PCI. Despite similar LVEF (46.8% vs 48.2%), diuretics were prescribed universally post- CABG (99.1% vs 14.8%,  $p < 0.001$ ). Calcium channel blockers were prescribed in  $< 5\%$  & more often post PCI (4.9 vs 2.2%,  $p < 0.001$ ).

**Drug doses:** For Aspirin, 150 mg OD was the commonest dose used (94.6% vs 88.2%; PCI/CABG). Clopidogrel 75 mg BD was used more often post PCI (82.5% vs 1.7%) while 75 mg od more post CABG (6.4% vs 95.2%). Statin 40-80 mg was prescribed more often post PCI (68.2% vs 0.3% and 9.8% vs 0% respectively,  $p < 0.001$ ). Statin 10 mg was used in 82.5% post CABG vs 5.4% post PCI ( $p < 0.001$ ). A 50 mg dose of betablocker was used in 74.2% post PCI vs 42.1% post CABG; 25 mg betablocker was prescribed in 47% and 21.1% of post CABG & post PCI patients (all  $p < 0.01$ ).

**Conclusions:** Significant differences in prescription of GDMT exist at hospital discharge even in a tertiary centre. Post CABG, 7% and 53% patients were not prescribed a betablocker & ACEI respectively. Post CABG, patients were less likely to receive high dose statin or optimal betablocker dose & more likely to receive diuretics (irrespective of EF). Post-PCI, 80 mg statin was used in  $< 10\%$ . Such evidence practice gaps need to be rectified to improve cardiac care.

## Pudendal artery angioplasty for the treatment of complex erectile dysfunction in males

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**Background:** Erectile Dysfunction (ED) is an important and growing health problem. It is estimated that more than 200 million men (between the age of 40 – 70 years) suffer from ED. The real prevalence could be much higher as it is underreported and undertreated. Out of the many etiologies, 80% of cases are of vasculogenic origin. Venous leak and arterial inflow problems (usually pudendal artery stenosis) are the most common

etiologies. In patients who fail PDE-5 inhibitors therapy (Complex ED), vasculogenic causes should be strongly suspected.

**Methods:** The workup is done by excluding the endocrinal, urological and psychological causes and then subjecting these patients to a penile Doppler study (after intra cavernosal injection of papaverine). In patients where the peak systolic penile velocity is less than 25cm/sec, pudendal artery stenosis is strongly suspected. These patients then undergo a selective angiography for identification of pudendal artery stenosis. If the stenosis is found, they are subjected to super selective pudendal artery cannulation and angioplasty or stenting using drug eluting balloon (DEB) or zotarolimus eluting stents (DES). Patients are followed up at 3, 9, 12 months and then after every year by Duplex scans.

**Results:** 36 consecutive worked up patients of complex ED with pudendal artery stenosis underwent pudendal artery angioplasty (with DEB or DES). The procedure was successful in all patients. There was no death, perineal or penile gangrene. The mean penile velocity increased from base line of 16cm/sec to 44, 50, 58cm/sec at 3, 6, 12 months respectively. Improvement  $> 4$  points in International Index of Erectile Functions (IIEF -6) score at 3, 6 and 12 months were 68 %, 75 % and 78 % respectively.

**Conclusions:** Angioplasty of focal stenosis of internal pudendal artery by DEB or DES appears to be a very promising therapy for male erectile dysfunction. It is safe, feasible and leads to sustained improvement of male erectile dysfunction.

## Endovascular treatment of superior vena cava syndrome because of central vein occlusion

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**Background:** Central venous occlusions (CVOs) are a common complication that may arise after the placement of central venous catheters, especially in patients of chronic renal failure undergoing maintenance hemodialysis and patients with indwelling pacemaker leads. Patients may present with Superior Vena Cava (SVC) syndrome (symptoms of upper limb and cranial venous hypertension leading to swelling of face and upper limbs) and inability to continue with hemodialysis. Till recently, there was no satisfactory and durable treatment for these patients, but of late, endovascular recanalization of CVOs has become feasible and a successful treatment option in these patients. Surgery carries a very high morbidity as is often unsuccessful.

**Methods:** Patients presented with SVC syndrome. Diagnosis of CVO was made by angiography. Anatomical details like site and length of occlusion, collateral pathways, presence or absence of thrombus and distal venous anatomy were noted. The CVOs were recanalised through either femoral, brachial or subclavian approach using 0.035" hydrophilic guide wires, extra backup telescopic catheters, non compliant peripheral balloons (Mustang, Boston Scientific) and self expanding stent implantation (Epic, Boston Scientific). Patients were kept on dual antiplatelet for one month followed by Aspirin 150mg daily. Hemodialysis was initiated immediately after the procedure.

**Results:** N = 97; Subclavian Vein - 35; Brachiocephalic Vein 13; Superior Vena Cava 23 and Combined Lesions - 26 Technical Success in 91 /97; Percutaneous Transluminal Angioplasty (PTA) in 69; Stents-22 and Catheter Directed Thrombolytic Therapy (CDTT) 23 Patency: Primary (at 6 months) : 48%, Secondary (at 1 year) : 87%.