CLINICAL PROFILE, PROCEDURAL OUTCOME AND SHORT TERM FOLLOW UP OF PATIENTS UNDERGOING ENDOVASCULAR STENTING FOR COARCTATION OF AORTA

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BACKGROUND
Endovascular stenting is considered the preferred option in managing coarctation of aorta in older children and adults. Covered stents are used in selected or high risk category of patients.

AIMS
To study the clinical profile, procedural outcome and short term follow up of patients undergoing endovascular stenting of coarctation of aorta.

METHODS
Between May 2013 and November 2016, 26 patients who underwent stenting of coarctation of aorta were retrospectively analyzed.

RESULTS
26 patients (eight females) aged 1-54 years (median 29), weighing 7.8 -86.4 kg (median 55.1), underwent stenting of COA. All except one had post-subclavian coarctation. 70% of patients had hypertension and were on treatment. Mean gradient at catheterization was 69.2 ± 29.4 mmHg and mean gradient post-procedure was 3.5 ± 4 mmHg. A total of 27 stents were deployed, Covered CP (17), Cook Formula (1), Advanta V12 Atrium (2), Intrastent Mega (3), Palmaz (2),Andrastent (1), Bare CP (1). Covered stents were used in 59.1%. The mean stent length and balloon diameter were 34.73 ± 11.56 mm and 16.3 ± 2.42 mm respectively. Pre-dilatation was done in two patients including one with near interruption. Post dilatation was needed in 35% of patients. Procedural complications included dissection in one patient needing a second covered stent and right femoral artery occlusion in another. Retroperitoneal hemorrhage in one resulted in mortality. Follow-up ranged from 1 month to 3.5 years. 36.4% required continuation of antihypertensive therapy even after stenting. Re-dilatation was required in 1 patient with pre-subclavian coarctation.

CONCLUSION
Stent implantation is a safe and effective alternative to surgical repair in COA. It provides immediate and near complete relief of pressure gradient which is sustained on short-term follow up. Systematic long-term follow up is required to look for restenosis, aneurysm formation and persistent systemic hypertension.