

alone or improvement in PA saturations alone. Likewise a fall in PAEDP and poor improvement in saturations leads to higher post-operative residual PAH and longer ICU ventilator need and need for milrinone to counter postoperative residual PAH.

Comparison of ambrisentan with sildenafil in congenital heart disease with irreversible pulmonary artery hypertension

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Background: The pathogenesis of PAH involves endothelial dysfunction characterised by over-expression of vasoconstrictors such as endothelin-1 (ET-1) and thromboxane A2. Endothelin receptor antagonists (ERAs) are a class of potent vasodilators and antimitotic substances. Aims & Objectives - To assess the efficacy of endothelin receptor antagonists (ERAs) Ambrisentan in the treatment of patients with PAH secondary to congenital heart disease.

Methods: It is a retrospective observational study, carried out at single tertiary care center. Patient of acyanotic congenital heart diseases (e.g. VSD, PDA, AV canal defect) admitted in cardiology department, found to have irreversible pulmonary hypertension on cardiac catheterization were enrolled in study. A total of 42 patients were enrolled in the study, 24 patients had received 10 mg of ambrisentan and remaining group 20 patient had received sildenafil at maximum tolerated dose for at least 6 months.

Primary outcomes were exercise capacity (a six-minute walk test (6MWD)) and World Health Organization (WHO) functional class or New York Heart Association (NYHA) functional class. Secondary outcome- Adverse events (for example, hepatic toxicity).

Results: An increase in the 6MWD was reported in the ambrisentan group. Increases in the 6MWD at 24 weeks was 51 meters in Ambrisentan group compared to 20 meters in sildenafil group. (95% CI 27–76; P, 0.001). Patient enrolled in the study were prominently WHO functional classification II (29%) and III (65%). Study demonstrated a significant improvement in WHO functional classification for patients receiving ambrisentan as compared with sildenafil (P = 0.036). Of the patients receiving ambrisentan, 2 (9.7%) discontinued because of adverse events (gastroenteritis, headache/face edema [n=1 for each]). Side effect of ambrisentan was found to be headache 2 (9.0%), peripheral edema 4 (18.18%). No evidence of hepatotoxicity like elevated liver enzymes, bilirubin in ambrisentan group.

Conclusion: Study demonstrate the efficacy and safety of ambrisentan in the treatment of patients with symptomatic PAH. The favorable efficacy-to-safety profile of ambrisentan may offer potential advantages over the currently approved treatment options.

Our experience of percutaneous ventricular septal device closure at our centre (tertiary care) – Retrospective study

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Background: Ventricular septal defect (VSD) is the most common congenital heart defect at birth, as well as one of the common

heart defects in adult age group. Repair of ventricular septal defect (VSD) has been historically performed surgically. However, percutaneous VSD closure is also feasible and the frequency has increased given the desire of young patients to avoid surgery. Standard treatment of VSD is open surgery, which is widely performed with but still carries risks, such as complete atrioventricular block, residual shunt, postpericardiotomy syndrome, and wound infection. Transcatheter VSD device closure is a treatment option for isolated uncomplicated muscular VSDs, and for membranous VSDs, in selected patients with suitable anatomy. Appropriate anatomy for transcatheter closure includes a VSD location remote from the tricuspid and aortic valves with an adequate rim of tissue.

Here we are presenting our experience about percutaneous VSD device closure or attempted VSD device closure in 12 patients at tertiary care centre.

Methods: Between June 2013 and July 2014 patients undergoing percutaneous VSD device closure or attempted VSD device closure were studied retrospectively. All patients underwent detailed conventional two dimensional and colour Doppler transthoracic echocardiography to study the type of VSD, shunt across the VSD, length of aortic rim and pulmonary hypertension. VSD size was confirmed angiographically and device closure was done under general anesthesia with TEE guidance according to standard protocol. During immediate postoperative period, rhythm and position was monitored by doing ECG and TTE respectively. Patients were given weight based aspirin and clopidogrel for 6 months. Patients were followed up on outpatient basis every 6 months for 1 yr and then every year and TTE was done during each visit.

Result: There were total 12 patients out of which successful device closure was done in 10 patients. The average age of patient was 6.9 yrs (ranges 2.5 to 18 yrs). The 5 (41.6%) patients were female and 7 (58.3%) were male. The median size of VSD was 5.3 mm (ranges 2.3 to 16 mm) one (8.3%) patient had two VSD. Average size of device used was 7.1 mm. procedure related complication occurred in 4 patients. One (8.3%) patient had CHB after releasing of LV disc hence procedure was abandoned. One (8.3%) patient had embolization of device in the aorta which was successfully retrieved by transcatheter route. No patient had postprocedure death. No Patients had postoperative rhythm disturbances. All patients were discharged two days after procedure. All patients were follow up at six month and 1 year by ECG and transthoracic echocardiography.

Conclusion: In experienced hands, transcatheter VSD closure can be performed safely and successfully with low morbidity and mortality. Transcatheter approach provides a less-invasive alternative that may become the first choice in selected VSD patients.

Experience with large ostium secundum atrial septal defect (ASD) closure by transcatheter percutaneous device (device) at J.J. Hospital

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Background: Small ASD are routinely closed by device. Larger ASD by device closure is problematic. But, in these defects also, device closure has high success. We present our experience of device closure of ASD measuring >25 mm.