

patients need re-dilatation, there was 2 (22%) late deaths (one t has stent thrombosis one month after followed by fulminant pulmonary embolism, though all patients were on anticoagulant other one with sudden arrest came to the emergency could not be resuscitated ) 3 (33%) patients have persistent low albumin though the fenestration is patent.

**Conclusion:** Transcatheter fenestration creation as a management of PLE following Fontan procedure is feasible procedure, can be done in the cath. lab with little morbidity and mortality and with beneficial effect, however late complication and complete resolving of PLE is of concern especially if done late.

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### Impact of perioperative transesophageal echocardiography on tetralogy of fallot total repair

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**Introduction:** Previous studies have suggested that in cardiac surgical patients, TEE provides essential information before and after cardiopulmonary bypass regarding cardiac performance, valve function, and congenital anomalies. Significant residual abnormalities may be missed during TOF surgical repair. The result is often post-operative morbidity and mortality and sometimes the need for reoperation.

**Objectives:** To determine impact and accuracy of perioperative TEE in assessment of patients undergoing TOF total repair.

**Methods:** The study included 50 patients with TOF referred to Cardiothoracic Surgery Department Ain Shams University Hospitals for total repair. Each patient was subjected to history taking, clinical examination, routine preoperative investigations, preoperative TTE, perioperative TEE and Post recovery TTE.

**Results:** Our study population included 45 (90%) pediatric patients and 5(10%) adults. Youngest was 1year 2 months old and oldest was 25 years old. Their weight ranged from 8 to 85 Kg. TEE was feasible in 49 cases (98%) while the pediatric probe failed to be introduced in only one patient. TEE was able to visualize LM coronary artery in 96% of cases, and visualized RCA in 70% of cases. TEE newly detected a case with separate ostia of LAD and LCX. Only one patient developed non sustained runs of SVT

There was significant difference between TEE and TTE as regard IAS visualization (P value <0.0001). All our patients had only subaortic VSD except 4 patients. Three had doubly committed subarterial VSD seen by both TTE and TEE, while one patient had subaortic VSD with inlet extension, which was visualized only by TEE. Postoperative TEE detected residual small VSD in 29 cases of whom 14 cases had the VSD closed spontaneously by the time of TTE. TEE missed small residual VSD in 3 cases. In one case postoperative TEE showed a serpiginous mid muscular VSD which was not detected preoperatively.

There was moderate agreement between TEE and TTE regarding overriding of aortic valve (weighted Kappa 0.580). There was strong

agreement between TTE and TEE in assessment of postoperative PR (r 0.8594,  $P < 0.0001$ ).

Preoperative TEE showed major impact in 2 cases (4%). In one case total repair was decided instead of shunt operation. While in the other TEE newly detected TV chordae attached to IVS crest with inlet extension of VSD. Preoperative TEE had minor impact in 29 cases (59%) by adding new information which did not alter surgical plan, as visualization of coronaries and IAS.

TEE showed major postoperative impact in 2 cases (4%) in the form of second run of CPB and RVOT reconstruction. Minor impact in the form of detection of relieved RVOT obstruction, absence of residual shunts, preserved biventricular function in 47 cases (94%).

**Conclusion:** TEE imaging is a safe, feasible, and accurate tool for anatomical, hemodynamic, and functional assessment in patients with TOF during surgical repair. TEE offers the advantage of permitting visualization of the operative procedure in real time and provides guidance for the surgeon in making decisions inside the operating room.

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### Is mini-mental score examination (MMSE scoring) a new predictor of uncontrolled hypertension?

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**Introduction:** Essential hypertension is still an important cardio-vascular morbidity and risk factor for many target organ damage. There still remain a large number of patients, especially in the under-developed countries who have an apparently controlled blood pressure (based on a single clinic visit) when it is actually poorly controlled. The brain is among the target organs infrequently visited by researchers. This is probably due to the common occurrence of systemic hypertension and non-hypertensive atherosclerosis in the elderly. Similarly, vascular and non-vascular dementia may also be seen. The separation of these different pathological entities for studying the sole effect of hypertension on the CNS is difficult.

**Aim of our study:** We aimed to evaluate whether the abnormal MMSE score predicts an un-controlled hypertension, confirmed by the 24-h Ambulatory Blood Pressure Monitoring (24-h ABPM), even if the office blood pressure measurement is normal.

**Patients and Methods:** Seventy seven patients were included. All patients were aged 65 years old or above, with history of hypertension and are on treatment (even if their office blood pressure was within the normal range). All patients had clinic and 24-hour ABPM. The cognitive function of each patient was assessed by using mini-mental state examination (MMSE) and a customized simple brain MRI study. Patients with other causes of dementia and diabetes were excluded from the study. Patients were classified into a normal cognitive function group ( $n = 19$ ), a mild ( $n = 9$ ), moderate ( $n = 38$ ) and severe cognitive impairment ( $n = 11$ ) groups. The deep white matter