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Neurodevelopmental problems in patients with congenital heart diseases (CHD) have become focus of an increasing concern. Aim of the study: to assess level of S100B protein as a brain damage marker in patients with CHD undergoing cardiosurgical procedures. Patients and methods: Fifteen patients (eight with cyanotic and seven with acyanotic heart disease), mean age of 4.8 + 3.9 years, neurologically free admitted for procedures involving CPB were enrolled in the study, and 30 healthy children as a control group. S100B protein levels were assessed before operation, 1/2 an hour after CPB and 24 h after operation as well as heart rate, bloodpressure, hematocrite, central venous pressure (CVP), PO2 and PCO2.

Results: S100B protein was significantly elevated in patients 1/2 an hour after CPB, before and after operation than controls with highest values 1/2 an hour after CPB ($P < 0.0001$, $P < 0.001$ and $P < 0.001$ respectively). Also, it was elevated in cyanotic compared to acyanotic group ($P < 0.001$). S100B protein 1/2 hour after CPB correlated positively with aortic clamping time, and negatively with body temperature.

Conclusion: patients with CHD are liable for subtle brain damage which increases during surgical intervention as evidenced by increased S100B protein. This elevation is related to aortic clamping time and core temperature during cardiac surgery.

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Corrected qt interval in normal egyptian neonates: Comparison to corrected qt interval of other ethnic groups

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Long QT syndromes (LQTS) is a familial cardiovascular disorder characterized by abnormal cardiac repolarization and sudden death from ventricular fibrillation. Possible acquisition of standardized neonatal screening method to identify children with (LQTS) has led to inter-

est in establishing normal values for neonatal QT intervals.

Aim of the work: to compare corrected QT interval in normal Egyptian neonates to published values of other ethnic groups.

Subjects and methods: This cross sectional study was conducted on neonates following up in Children's Hospital Ain Shams University, with post natal ages ranging from 8 to 28 days (mean 13.91 ± 3.97 days). They were subjected to: history taking, clinical examination, Echocardiography and 12 lead ECG assessment of corrected QT interval using Bazetts formula. Results: Cut off point of LQTc was >0.44 s, while that of short QTc was < 0.29 s. Significant increase in mean QTc values and LQTc % was found in upper Egypt than Delta ($p = 0.026$, 0.01). Eighty five percent of neonates had normal QTc (0.300–0.450 s), 9% had LQTc (>0.45 s) and 6% had short QTc (<0.300 s). Significant increase in short QTc was found in PT than FT while significant increase in LQTc was found in FT ($P = 0.020$, 0.019).

Conclusion: Cut off point was >0.44 s for LQTc and < 0.29 s for short QTc in studied Egyptian neonates. A higher percentage of patients with LQTc was found in Upper Egypt than Delta, and in FT than PT. Higher percentage of SQTc was found in PT than FT. Further studies are needed to confirm our results.

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Coronary angiography safety between radial and femoral access

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Transradial coronary angiography has a lower incidence of access site complications, earlier patient ambulation, improved patient satisfaction, and lower cost. One of the major criticisms of the radial approach is that it takes longer; there are a longer overall procedure and fluoroscopy time, which means not only more staff will be exposed during the procedures, but they will also stand close to the patient where rates of radiation scattered by the patient are higher. The American Heart Association/American College of Cardiology clearly state that "the responsibility of all physicians is to reduce the radiation injury hazard to their patients, to their professional staff and to themselves". So, the aim of this study was to evaluate the safety of radial versus femoral artery approach in our institution's routine coronary angiography practice.

Methods: All cases of diagnostic coronary angiography (CA) over a 23 months period at a tertiary care hospital (Cardiothoracic department, Spedali Civili, Brescia University, Italy) were reviewed for this analysis. Study population was stratified according to arterial access used to perform the procedure into 2 groups; radial group and femoral group. Access crossover was recorded and stratified based on the first route of access attempted.