24. Entrainment of wide complex tachycardia by atrial stimulation is highly accurate and can rapidly elucidate the tachycardia mechanism through analysis of entrainment response

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Objective: Although the diagnosis of wide-complex tachycardia (WCT) in the Electrophysiology Laboratory is usually straightforward, occasionally a WCT with 1:1 AV relationship can pose a diagnostic challenge. Furthermore, different responses to entrainment have been reported in relation to the pacing site of a variety of tachycardias, however, transient atrial entrainment of WCT has not been investigated sufficiently and systematically. We studied the response to atrial overdrive pacing to clarify the tachycardia mechanism.

Methods: Out of 43 consecutive patients who underwent catheter ablation for WCT, we prospectively studied 28 patients (65%, mean age 33 ± 11 years) with WCT and 1:1 AV relationship in whom response to atrial overdrive pacing could be evaluated. During the tachycardia, atrial overdrive pacing was performed. The following responses were observed:

1. A change of the QRS morphology during atrial pacing.
2. The first return electrogram of the tachycardia, whether occurring in the atrium (AVA response) or in the ventricle (AVVA response).
3. Atrial post-pacing interval (PPI) measured to the return A at the pacing site.
4. The difference between PPI and tachycardia cycle length (PPI-TCL).

Results: Atrial overdrive pacing was successfully performed in 28 patients. It was associated with either a change or narrowing of the QRS in all ventricular tachycardia (VT, n = 7) patients but not in supraventricular tachycardia (SVT, n = 21) patients. All VT patients had an AVVA response upon cessation of atrial overdrive pacing as opposed to AVA response in SVT patients, p < 0.001. PPI and PPI-TCL were significantly longer in VT patients (640 ± 92 ms vs. 378 ± 49 ms, p < 0.001 and 294 ± 75 ms vs. 70 ± 40 ms, p < 0.001 respectively). Receiver operator characteristics curve identified PPI-TCL > 160 ms as 100% sensitive and specific for diagnosing VT (p < 0.001).

Conclusion: Response to atrial entrainment can be helpful in the majority of WCT patients, particularly those with 1:1 AV relationship to diagnose or rule out VT as a mechanism of tachycardia with high accuracy.

25. The journey to zero CLABSI: Impact of unit-based CLABSI prevention program

Martina Douglas

The Central Line Associated Blood Stream Infection (CLABSI) is inevitable contributing factor in increased morbidity and mortality of patients admitted to Intensive Care Units (ICU) worldwide resulting in an increased financial cost and prolonged hospital stay (Ascher et al., 2012; Rosenthal et al., 2012).

CLABSI prevention strategies are the important part of improving patient safety and quality of care for patient with central venous line in ICU. The Center for Disease Control and Prevention (CDC) and the National Healthcare Safety Network (NHSN) benchmarked acceptable limits and issued recommendation for reduction of CLABSI to minimum.

The poster presentation aims to share our experience and challenges that we faced in reducing CLABSI rate in Pediatric Cardiology Intensive Care Unit (PICICU) Prince Sultan Cardiac Centre, Riyadh.

A literature review was conducted to determine the evidence-based approach to successful implementation of CLABSI prevention strategies for pediatric patients. The search of CINAHL, Cochrane, PubMed, Medline revealed 8 studies demonstrating effectiveness of Comprehensive Unit Based Safety Program (CUSP): Stop BSI. The CUSP: Stop BSI prevention program was started in April 2013 in combination with quality improvement model Focus PDSA with aim to reduce CLABSI rate by fifty percent. The intensive education program was started involving nursing staff, maintenance bundle care checklist initiated and audits performed. The above effort resulted in significant reduction to “Zero” CLABSI from July 2013 to December 2013.

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26. Effectiveness of telephone follow up in managing patients with type II diabetes mellitus

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Diabetes mellitus is one of the most common non-communicable diseases globally, labeled as the greatest healthcare challenge according to the World Health Organization and the International Diabetes Federation. This complex disease requires the involvement of multi-disciplinary teams to reduce the risk and impact of long-term diabetes complications through intensive monitoring, education and lifestyle modifications with a great