**Título:** An unexpected cardiac event in Brugada Syndrome patient

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**Resumo:**

Brugada Syndrome (BS) is an inherited ventricular arrhythmia associated with a high risk of morbimortality in the perioperative period. It is’s characterized by a persistent ST-segment elevation in V1- V3 ≥ 2mm followed by a negative T wave in the right precordial leads [1]. These changes are transient but they can be pronounced by some triggers [1, 2]. Due to its rarity and lack of studies, we describe a case of a BS patient proposed to elective surgery that presented some particularities, which deserve to be reported.

A BS 66 years-old man, ASA III, scheduled to a varicocele correction. He was diagnosed with BS in 2001 and, due to several syncope events, an ICD was placed. He referred only two shocks after that. In the OR he was asymptomatic, hemodynamically stable, HR 40 bpm. ICD records revealed the need for pacemaker activity to be <1%. The arrythmology technician disabled the ICD. The defibrillator was placed inside the OR and the pads placed on the chest.  The patient was subjected to a balanced general anesthesia with fentanil, propofol and rocuronium, maintenance with sevoflurane. After 20 minutes of the surgical incision, he developed a progressive sinus bradycardia (HR 30-35 bpm), interspersed with large QRS complexes, culminating in a pacemaker pace; it spontaneously reverted after 15-20 minutes. This rhythm variation caused a slight hemodynamic instability (within 20-30% of baseline), responsive to fluid therapy. At the end of the procedure, ICD was reactivated and the patient recovered basal HR and blood pressure values.

BS always causes apprehension in the anaesthetic management mostly because of the drugs´ effects and the stressful perioperative triggers. Despite the careful anaesthetic plan, this patient presented another challenge for us: the extreme bradycardia observed, apparently inaugural, which was not triggered neither by a surgical stimuli nor any drug. After a multidisciplinary discussion, we adopted an expectant attitude, and decided not to pharmacologically treat the bradicardia due to the BS background (and possible interactions). Surgery was completed and no further intervention was necessary. The patient was scheduled for a cardiology appointment.

The proactive clinical update by the anesthesiologist prior to the surgical procedure undoubtedly allowed the fundamental preparation this case required. Nonetheless, there are no bradycardic phenomena described in the BS, which raises doubts about another unrecognized cardiac disturbance that the anaesthetic management might have uncovered. The anaesthesiologist should be able to manage any unexpected cardiac event, in this case, that was specially challenging due to the patient´s background. Managing a situation by not intervening is a difficult decision, but sometimes it is the best action.

 [1] Anaesth Intensive Care 2011;39(4):571-577 [2] Europace 2013;15:1042-1949