

## **POSTERIOR INSTRUMENTATION WITH FUSION IN A C4/C5 BILATERAL FACET DISLOCATION PATIENT WITH SINUS SICK SYNDROME TREATED WITH PACEMAKER**

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**Introduction:** Spine surgery in a patient with pacemaker is challenging because the usage of monopolar might interfere with the function of the pacemaker. we would like to report a case of a pacemaker-dependent patient with sinus sick syndrome who are presented with bilateral C4C5 facet dislocation and successfully went in for posterior spinal instrumentation and fusion (PSIF).

**Discussion:** 75 years old gentleman with underlying sinus sick syndrome on the pacemaker, alleged fall and knocked his neck against the chair. Presented with neck pain associated with reduced range movement of the neck for two weeks. Otherwise, there is no weakness, no radiculopathy pain, and the patient able to ambulate. Upon examination, a left thoracotomy scar was noted. His neurology was intact and no myelopathy sign. The plain radiograph showed C4/C5 subluxation and MRI of cervical showed spinal canal stenosis however there is no cord changes were noted. The current pacemaker was inserted in 2017 with remaining battery longevity of 8 years. Before the surgery, the pacemaker was reprogramed to asynchronous mode with constant pacing at 80 bpm. The temporary transcutaneous pacemaker was applied as backup pacing. The surgery was performed by two senior surgeons with monopolar diathermy with setting at 25 and an electrocautery plate was applied on the thigh. Somatosensory-evoked potential monitoring was used throughout the surgery but the transcranial motor-evoked potential was not used in this case. Intra-operatively was uneventful. Post-operatively patient was monitor in the intensive care unit. The pacemaker was reverted to its original setting after 6 hours post-op. all the pacemaker and lead parameters were normal. He was discharged home at 3 days post-op with no complications.

**Conclusion:** Spine surgery in a patient with pacemaker dependence is a multidisciplinary approach and can be safely performed if adequate perioperative assessment and diligent intra-operative and post-operative care.