

Results: Personnel involved in the IOMRI theater were trained for a week before setting up the unit and mock drills performed. In a period of 1 month, 21 scans were performed, out of which 11 patients had residue and 9 underwent resurgery. The image quality was rated as good in 7 patients and satisfactory in 11 patients. Personnel required to shift the patients into the MRI were reduced with 12 initially to 4 later. We were also able to reduce the time taken to shift the patients into the MRI room and back substantially by continuous training of personnel and remodifying our protocols (four times).

Conclusion: Setting up an IOMRI involves challenges. Institute-based checklists, protocols, and data recording of events help prevent untoward incidences and improve resources utilization.

Keywords: IOMRI, intracranial lesions, resurgery

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A043 Cervical Spine Movement during Awake Orotracheal Intubation with Fiberoptic Scope and McGrath Videolaryngoscope in Patients Undergoing Surgery for Unstable Cervical Spine

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Introduction: Cervical spine (c-spine) movement during intubation with direct laryngoscopy (DL) can cause new-onset neurological deficits in patients with unstable cervical spine (UCS). While fiberoptic intubation is preferred, this is not always possible. Intubation using videolaryngoscope causes lesser C-spine movement than DL and may be better option for intubation in these patients. The primary objective of this study was to compare C-spine movement during awake fiberoptic-guided intubation (FGI) and McGrath videolaryngoscope-guided intubation (VGI) in patients undergoing surgery for UCS.

Methodology/Description: Following ethics committee approval and informed consent, 21 patients with UCS scheduled for fixation surgery were recruited over 1-year. Patients were included if they were 18 to 65 years and had upper C-spine instability. Based on computer-generated table, patients were randomized to FGI or VGI. Awake intubation was facilitated with airway blocks and fentanyl. C-spine movement during intubation was assessed by lateral fluoroscopy at three-time points (T1-baseline, T2-during glottis view, and T3-with tube in-situ). Motor power was assessed before and after intubation.

Results: The most common diagnosis was atlantoaxial dislocation followed by C1 or odontoid fracture. The mean age was 34.73 (13.63) and 33.70 (11.0) years in VGI and FGI groups, respectively. The degree of motion at C1/2 was

7.2 ± 1.9 in FGI and 6.5 ± 2.1 in VGI ($p = 0.863$). The movement at C3 was 5.01 ± 0.91 in FGI and 5.93 ± 2.52 in VGI. No patient developed new-onset deficits.

Conclusion: The degree of cervical spine movement was similar with both the techniques and no patient developed intubation-related motor deficits.

Keywords: UCS, VGI, FGI

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A044 Intracranial Hemorrhage in a Patient with Double Valve Replacement: A Balancing Act

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Introduction: Vitamin K antagonist “warfarin” is recommended in patient with prosthetic heart valve with aim to maintain international normalized ratio (INR) of 2.5. Intracranial hemorrhage is a dreaded complication in these patients. Optimum correction of anticoagulation to provide a window to allow neurosurgery while preventing valve thrombus is a delicate balancing act.

Methodology/Description: A 31-year-old patient, known case of rheumatic heart disease with aortic and mitral valve replacement done a month back, presented with emesis for a day and headache and fever. Computed tomography (CT) scan showed a right frontoparietal subdural hematoma and midline shift. The INR was 7.7 and 300 mL fresh frozen plasma was administered to correct it to INR 1.8. During the emergency decompression craniotomy, the main concerns were bleeding, thromboembolism, hemodynamic instability, valvular dysfunction, and infective endocarditis. Balanced anesthesia was used with invasive monitoring and transesophageal echocardiography. Intraoperative course was uneventful and patient was extubated. Intravenous heparin was administered. On day 2, CT suggested hematoma with midline shift. Patient was taken for re-exploration with repeat blood and plasma transfusions. After extubation, a single episode of convulsions occurred on the fifth day. Anticonvulsants were started. CT scan showed increased size of extra-axial hematoma. A third decompression craniotomy followed. Injection low-molecular-weight heparin (LMWH) 0.4 mg subcutaneous twice a day started. At present, patient is stable and shifted to ward.

Conclusion: Valve replacement patients are at high risk of intracranial hemorrhage due to anticoagulation. Appropriate management of anticoagulation is essential to ensure functioning of valve as well as prevent bleeding at other sites.

Keywords: double valve replacement, warfarin, intracranial hemorrhage