Introduction

The spectrum of spinal surgery in adult life is considerable. Anaesthesia for major spinal surgery, such as spinal stabilization following trauma or neoplastic disease, or for correction of scoliosis, presents a number of challenges .For example these patients commonly have preoperative co-morbid conditions such as serious cardiovascular and respiratory impairment. Optimal management depends on the anesthesiologist's understanding of the Pathologic process and the risks and requirements of the operative procedure.***(Raw et al,2003)***

A careful assessment should be made for previous difficulty in intubation, restriction of neck movement, and the stability or otherwise of the cervical spine,particular care should be given to the respiratory, cardiovascular, and neurological systems. Routine preoperative pulmonary function test may reveal important information with regard to restrictive lung disease in the preoperative assessment of patients and predict the early postoperative clinical course. ***(Raw et al,2003)***

Airway management may be difficult and sometimes require special approaches. These patients have an increased incidence of difficult intubation, most prominently in patients with rheumatoid disease (48%) followed by patients with cervical fracture or tumor (23 to 24%). Other risk factors for difficult intubation include upper (as opposed to lower) cervical spine disease and the presence of fixation devices.***(Gibsonet al,2004)***

Surgery imposes further stresses of significant blood loss , prolonged anaethesia,and problematical postoperative pain management.Added to these are the prone position of the patient with all its associated problems.Positioning of the surgical patient is an important part of anesthesia care and attention to the physical and physiologic consequences of positioning can help prevent serious

adverse events and complications.Ideal patient positioning involves balancing surgical comfort against the risks related to the patient position. Therefore, patient positioning during surgery should be considered during the preoperative evaluation ***(Rozet Iet al,2007)***

Intraoperative monitoring of spinal cord function is considered a standard of care in spinal surgery. Methods of monitoring the integrity of the spinal cord function intraoperatively include the wake up test, Somatosensory evoked potential(SSEP) and Motor evoked potentials (MEPs). The wake up test was described Before the use of electrical monitoring, it was a method of assessing spinal cord function during corrective procedures of the spine. The major advantage is that it assesses anterior spinal cord function (i.e. motor function). Recent advances in technology and the refinement of neurophysiological methodology are significantly changing intraoperative Neurophysiological monitoring (IOM) of the spinal cord***. (Soundararajan Net al,2007)(DeletisV,2008)***

The development of several blood conservation techniques during spinal fusion such as patient positioning to avoid abdominal compression, hypotensive anesthesia(HA), acute normovolemic hemodilution (ANHD), application of topical hemostatic agents to decorticated bone and the intraoperative recycling of red blood cells(RBCs) have been routinely applied during spinal fusion. ***(Black S,2009)***

Postoperatively, it is necessary only to provide artificial ventilation for a few hours in the postoperative care unit, until hypothermia and metabolic derangements have been corrected. A multimodal approach to analgesia is recommended, using a combination of simple primary analgesics, opioids, and regional anaesthesia techniques where appropriate. ***(Raw et al,2003)***