**Supplement 1.** Neurosurgical survey

A consultant colleague and his twin brother (aged 42) are racing at Brands Hatch when they crash. Both sustain an isolated acute spinal cord injury at C6/7, secondary to a fracture of the vertebral body, as confirmed on CT. One brother has no motor or sensory function below C7 (complete), the other has severely reduced power below C7 and some sensory loss (incomplete) They are placed in a hard collar in A&E and referred to your neurosurgical unit. The time is 23:55 on a Saturday night.

|  |  |  |
| --- | --- | --- |
|  | **Incomplete injury** | **Complete injury** |
| **What is the timing of transfer to your unit?** |  |  |
| Within 4 hours |  |  |
| Between 4 - 24 hours |  |  |
| Between 1 - 4 days |  |  |
| After 4 days |  |  |
|  |  |  |
| **When would you aim to take the patient to theatre?** |  |  |
| Immediately (within 4 hours of transfer) |  |  |
| Emergency list (between 4-12 hours after transfer) |  |  |
| Elective list (between 12-72 hours after transfer) |  |  |
| Delayed (after 72 hours from transfer) |  |  |
|  |  |  |
| **Do you require a pre-operative MRI?** |  |  |
| Yes |  |  |
| No |  |  |
|  |  |  |
| **Why would/would not you require a preoperative MRI scan?** |  |  |
|  |  |  |
| **Which of the following form part of your routine medical management?** |  |  |
| Blood pressure control |  |  |
| Supplemental oxygen |  |  |
| Targeted PaCO2 levels |  |  |
| Temperature regulation |  |  |
| NG tube to prevent aspiration |  |  |
| DVT prophylaxis |  |  |
| Glucocorticoids |  |  |
| Mannitol |  |  |
| Hypertonic saline |  |  |
|  |  |  |
| **In patients with acute spinal cord injury, what level do you maintain the blood pressure at?** |  |  |
| MAP > 60 mmHg |  |  |
| MAP > 80 mmHg |  |  |
| SBP +/- 20% of normal |  |  |
| Controlled hypertension |  |  |
| As guided by intensivist/anaesthetic colleagues |  |  |
|  |  |  |
| **What do you aim to achieve with surgery?** |  |  |
| Bony stabilisation +/- instrumentation |  |  |
| Bony decompression of theca at level of injury |  |  |
| Include durotomy (+/- patching) to decompress cord |  |  |
|  |  |  |
| **Would you request a post-operative MRI within one week?** |  |  |
| Yes |  |  |
| No |  |  |
|  |  |  |
| **Why** **would/would you not require a preoperative MRI scan?** |  |  |
|  |  |  |
| **Any further comments?** |  |  |