Intraoperative Management of Raised ICP

REDUCE VOLUME OF INTRACRANIAL CONTENTS TO REDUCE THE ICP

Suspected Intracranial Hypertension – ICP >20mmHg?

Inform Faculty/Staff of situation

Relieve any mechanical obstruction to venous drainage; check for ETT ties

Head up 15°
Neutral head position on neck

Open Ventriculostomy; carefully drain CSF **5mls at a time only**:
Discuss w/ surgeon

paO2 >100mmHg
paCO2 32-38mmHg

Target Cerebral Perfusion of 60mmHg
CPP = MAP – ICP
If no ICP monitor, aim MAP 90mmHg

Mannitol
0.25 to 1 g/kg
e.g. 25g to 50g

Hypertonic Saline
Infusion 100mls of 3%.
Stop if:
-serum Na >155
-osmolality >320

If high ICP persists, shift to intravenous anesthetic with propofol or barbiturate
- if EEG monitored, target burst suppression
-ensure adequate neuromuscular blockade

Dexamethasone 10mg
may take 4-8 hours to work
(not indicated in traumatic brain injury)

Active cooling

Reduce CSF production w/ Furosemide 20mg