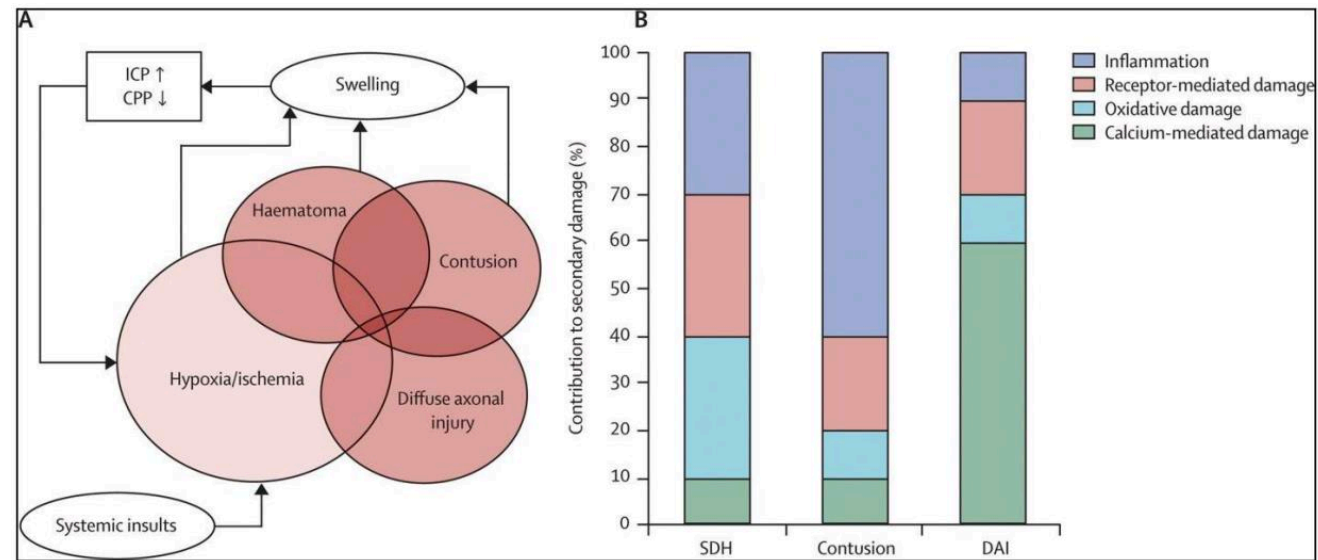


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Melania Geymonat Ramírez

1. Primary injury

2. Secondary insults → in Critical Care we try to reduce the magnitude of these



Aim

Outstanding level of care provided in >90% of patients presenting with severe brain injury by 

Measures: outcomes

Outcomes

- Clear targets documented for BP, PaO₂, PaCO₂ during the 1st 48 hours¹
- <x2 BPs >10mmHg below than target (or above the target is upper limit set) – when on one or no vasoactive drugs
- <x2 PaO₂ below target (when FiO₂ not 1.0)
- <x2 PaCO₂ outside target
- No unnecessary hypo-osmolar fluids used in ICU
- <x2 Temps > 37.5 (+ None >38)
- Specific action to increase [Na] if [Na} is < 140.

In TBI

- interventions taken to normalise coag/platelets
- anticonvulsants used (or specific documented decision not to use)
- Neurosurgical advice documented in notes)

¹(if no targets set then take CO₂ target as 4.5-5.3, O₂ >9 in OOHCR/ >13 in TBI or other, MAP >65 OOHCR/ >90 in TBI)

Measures: process

- Each element of above definition
- Use of neuroprotection tool (Yes vs No for individual patient)
- Elements completed on tool
- Evidence of action taken (including vent/infusion rate changes or ACCP/doctor asked for review) when target missed

Measures: balancing

- Median Length Of Stay
- Standardised Mortality Ratio

Example of data collection

					If no targets set use CO2 4.5-5.5 and PaO2 10 MAP >80(or 65 if OOHCA)					
Targets documented for BP by admitting team	target documented for PaCo2	Targets documented for PaO2	PO2 outwith target >/= 2 occasions during period of neuroprotection (up to 72 hours max)	PCO2 outwith >/= 2	MAP > 10mmHg outwith >/= 2 (unless >/= 2 press	Temp > 38 or x2 > 37.5	Was temp <36 ever?	Hypo-osmolar fluids given	[Na] <140	If [Na]

Data collection

- Team of 5-10
- 10 patients per month
 - Screen possible patients
 - Then complete data collection on spreadsheet
- Team meetings to discuss the project

QI reflection

- Big project aiming to improve practise at departamental level
- Collective effort
- Some measures changed since project started
- Better outcomes for patients