Bioethical Implications of Hemicraniectomy Following Ischemic Stroke: "Is it a no-brainer?"

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Facts of the Case

• 51-year-old Caucasian man
• Aortic valve replacement and ascending aortic aneurysm repair
• Past medical history:
  • CAD
  • DM II
  • HTN
  • HLD
  • Morbid obesity
• Post-op: Unresponsive, dysconjugate gaze

Elevated ICP

• Extensive left-sided MCA infarction
• Repeat CT: midline shift
• How to proceed?
  • Medical management
  • Hemicraniectomy
  • Palliative
Reconciling Competing Values

- HCPOA
- Family wishes
- Religious Guidance
- Casuistry
- Economic considerations
- Likely outcome, or quality of life
- Autonomy, justice, beneficence, nonmaleficence

- Dispositive
- Surgery
- Permissive
- Medical Management/Palliative
- Palliative
- Palliative
- Palliative
- Conflicting

Outcomes Following Hemicraniectomy

- European RCTs: DESTINY, HAMLET, DECIMAL
- Probability of survival increased from 28% to 80%
- Survival with significant assistance (mRS =4) increased tenfold
- Survival with very severe disability (mRS=5) unchanged
- Surviving patient survey: most accepted condition


Case Outcome

- Hemicraniectomy on POD2
- Expressive aphasia
- Peg tube
- Tracheostomy
- Ambulatory with a walker
- Speech and physical therapy
Concluding Thoughts

- Multi-modal analysis: medical, bioethical, legal
- Different valuation systems lead to different outcomes
- Attempt to balance competing interests