INTRACEREBRAL HAEMATOMAS

Marcos Barbosa
Neurosurgical Department
Hospitais da Universidade de Coimbra
Coimbra, Portugal

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INTRACEREBRAL HAEMATOMAS

ISCHEMIC STROKE

200/100,000/year

19% dead 1st month

50% independent 1 year

HAEMORRAGIC STROKE

20/100,000/year

40% dead 1st month

20% independent 1 year

(Dennis M et al, Stroke 24:796-800, 1993)

(Dennis M et al, Cerebrovas Dis 16:9-13, 2003)
Female, 74 years old, arterial hypertension, sudden headache + dizziness, other hospital - CT scan. 12h later GCS=15, vomiting, mild disartria, nothing else.
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- INFRATENTORIAL
  - 46% deterioration
  - predictive factors:
    - arterial hypertension
    - miosis, ocular paralysis,
    - corneal and oculocephalic reflexes
    - haematoma > 3 cm, extension to vermis,
    - brain stem distortion, herniation, IVH,
    - hydrocephalus
INTRACEREBRAL HAEMATOMAS
Female, 74 years old
arterial hypertension
sudden headache +
dizziness
GCS = 4

CT – ...
### TABLE 5. Recommendations for Surgical Treatment of ICH

#### Nonsurgical candidates

1. Patients with small hemorrhages (<10 cm³) or minimal neurological deficits (levels of evidence II through V, grade B recommendation).

2. Patients with a GCS score ≤4 (levels of evidence II through V, grade B recommendation). However, patients with a GCS score ≤4 who have a cerebellar hemorrhage with brain stem compression may still be candidates for lifesaving surgery in certain clinical situations.

#### Surgical candidates

1. Patients with cerebellar hemorrhage >3 cm who are neurologically deteriorating or who have brain stem compression and hydrocephalus from ventricular obstruction should have surgical removal of the hemorrhage as soon as possible (levels of evidence III through V, grade C recommendation).

2. ICH associated with a structural lesion such as an aneurysm, arteriovenous malformation, or cavernous angioma may be removed if the patient has a chance for a good outcome and the structural vascular lesion is surgically accessible (levels of evidence III through V, grade C recommendation).

3. Young patients with a moderate or large lobar hemorrhage who are clinically deteriorating (levels of evidence II through V, grade B recommendation).

Best therapy unclear

All other patients.
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medical treatment

surgery
“Early surgery versus conservative treatment in patients with spontaneous supratentorial intracerebral haematomas in the International Surgical Trial in Intracerebral Haemorrhage (STICH): a randomized trial”

STICH

26% favourable outcome with surgery
24% favourable outcome with medical treatment
(OD 0.89 [95% CI 0.66-1.19] p=0.414)

36% mortality with surgery
37% mortality with medical treatment
(OD 0.95 [95% CI 0.73-0.1.19] p=0.707)
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DIAGNOSIS

- CT scan
- MR scan
- Angiography
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DIAGNOSIS

- CT scan – sensibility, localization, volume, IVH, ventricular dilatation, oedema, mass effect, middle line shift
- MR – small and previous haemorrhages
- Angio – selected cases
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AxBxC/2
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Female, 37 y
arterial hypertension
E1M5V1 = 7
miotic pupils
right hemiplegia
CTscan day 0
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EVD
GCS = 14
right hemiparesis 3
EVD out 2 weeks
Neurology
3 months GCS = 15
hemiparesis 4
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Male, 25Y
Headaches 3 days
Neurological examination Ø
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Female, 26y
30 week pregnancy
GCS = 5
right dilated pupil
extension left
bilateral Babinsky
mannitol
corticoids
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Neurology
GCS = 7
right dilated pupil
bilateral withdrawal
Babinsky on the left
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Neurosurgery
GCS = 10
symmetrical pupils
left hemiparesis 2
Babinsky on the left
baby ok
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14h - GCS = 5
surgery
GCS = 3
surgical delivery
Female 47 y
epilepsy (first episode)
GCS = 15
left hemiparesis
left VI and VII
left plantar extension
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Female, 73 y
24h evolution
GCS = 12
aphasia
right hemiparesis 4
bilateral plantar extension
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GCS = 15
recovered from aphasia
and hemiparesis
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Male, 45 y alcoholic
E1M4V1= 6 (13)
bilateral dilated pupils
corneal +
left hemiparesis
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