

# Non-endoscopic minimally invasive evacuation of intracerebral haematoma

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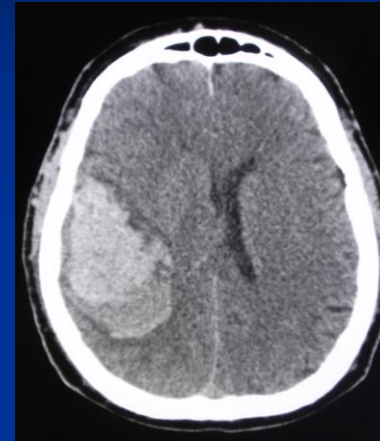
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## Introduction

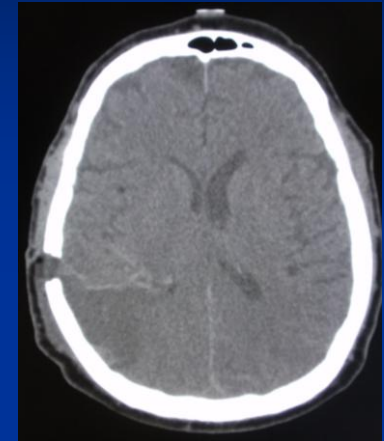
Spontaneous intracerebral haemorrhage has a high disability and mortality rate. In cases, when surgery is needed, minimally invasive approach is recommended.

## Patient Report

A 59-year old patient was admitted due to progressive left sided arm and leg weakness. CT of the head revealed an ICH with haematocephalus. Coagulation and aggregation values were deranged as a result of liver failure (INR and PT 1.56 and 0.47, respectively, platelet count 33). Fresh frozen plasma, recombinant coagulation factor VIIa, prothrombin complex, vitamin K and platelet plasma were applied. Consciousness declined and surgery was recommended. A burr hole of 1cm in diameter was made in the right temporal area. Under the microscope, the liquefied blood was evacuated with aspirator and bipolar. The ICP values remained normal. The control CT scan showed successfully evacuated haematoma and normal width of the ventricles. Sedation was gradually discontinued. The patient was awake with persistent left sided haemiplegia.



A CT of the head showing an extensive ICH of 7cm in diameter of mixed density (hypodense areas indicating active bleeding) with haematocephalus of the right lateral ventricle. The brain shift is evident (left).



The control CT after the operation. The ICH was successfully evacuated and no hydrocephalus was present (right).

## Conclusion

Spontaneous intracerebral haematoma is a frequent pathology. The outcome is usually poor. It primary depends o the previous condition of the patient, location and extent of the haemorrhage and concomitant anticoagulation.

In case of patient with numerous risk factors and imminent operation, minimally invasive surgery for intracerebral haematoma is warranted.