Intracerebral hemorrhage: epidemiology and surgical options from a tertiary care hospital in Eastern Nepal

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Abstract

Background
Intracerebral hemorrhage accounts for 10 to 20% of strokes. Based on the precise site and size of the hematoma, ICH can manifest a range of clinical and radiological deficits. The role of surgical removal of hematoma has by far been controversial, and despite large clinical trials, the efficacy of surgery remains controversial. In this paper, we described our experience of ICH and its epidemiology along with the outcomes of patients undergoing surgical removal of hematoma secondary to ICH.

Patient And Methods
A retrospective observational study was conducted from April to September 2018 in a tertiary care center in Nepal. 102 patients undergoing surgery using trans-cortical, trans-sylvian or endoscopic approaches were included, and their outcomes were assessed using a 5-point GOS at a 6-weeks follow-up.

Results
A total of 102 patients were included in the study. Out of these, 54 were males (mean age: 54.7), and 48 females (mean age: 56.13). Smoking was common in 42.2% of patients and alcohol intake (15.7%). The site of hematoma was 55.9% basal ganglia bleed and 44.1% hemorrhages of the frontal, occipital, parietal and temporal lobes collectively. Surgical outcomes at a 6-weeks follow-up included a mortality of 11.8% (n=12), 27.5% (n=28) with moderate disability, and 60.8% (n=62) with good recovery.
Conclusion
The etiology of ICH is attributed to a spectrum of modifiable and non-modifiable risk factors. Treatment strategies should focus on prevention of progression to secondary brain damage. Surgical intervention, if performed during the ideal time-window provides a good outcome in patients with ICH. Further studies are needed to evaluate the efficacy and best treatment strategy.

Keywords
Intracerebral Hemorrhage; Hematoma, Hemicranieotomy