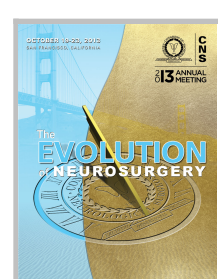


Minimally Invasive Puncture and Drainage of Supratentorium Hypertensive Cerebral Hemorrhage Procedures with Assistance of Flat Detector Computed Tomography Navigation Technology

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Introduction

Minimal invasive puncture and drainage of supratentorium hypertensive cerebral hemorrhage(HICH) was a effective treatment. Safety and accuracy was the main consideration for the procedure. Flat detector navigation technology was used in this series patients and the safety and effectiveness was evaluated.

Methods

Eighteen HICH patients with mean GCS of 10.2 ± 1.7 were included in this study. Minimally invasive puncture and drainage procedures were performed on all patients. The procedures' safety and results, patients' clinical condition variations and the GCS as well as GOS scores during discharge and on month after discharge were observed

Results

All the procedures were successfully completed within about 30 minutes. All the positions of the tube were exact in the targeted place. The average time for the hematoma to decrease to less than 10ml was 3.4 ± 1.3 days. There were no major adverse events except one patient who suffered from pneumonia. None of patients died of operations. The GCS score at discharge was 12.3 ± 1.8 in average. The GOS score at discharge and one month's follow up were 3.5 ± 0.8 and 3.9 ± 0.8 respectively.

Conclusions

Flat detector navigation guided stereotactic puncture and drainage of supratentorium HICH proved to be a convenient and accurate method. It is feasible and safe, and it is effective in short term for the patients according to indications

Learning Objectives

To investigate the feasibility, safety and effectiveness of flat detector navigation technology in the minimally invasive puncture and drainage of supratentorium hypertensive cerebral hemorrhage(HICH)