

Outpatient minimally invasive surgery for Incidental Aneurysms: Is it safe?. Preliminary report. Mauricio Mandel MD; Eberval G. Figueiredo MD, PhD; Manoel Jacobsen Teixeira Hospital das Clínicas of University of São Paulo Medical School

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INTRODUCTION

Minimally Invasive Neurosurgery is already a reality in many centers in the world . This is a broad and relative concept. We demonstraste preliminar results of the first clinical trial in Brazil questioning the safety of the of minimally invasive surgery to treat incidental cerebral aneurysms of the anterior circulation. The trial is also focused in the determination of ideal time of hospital stay.



VIDEO 1 - The transpalpebral approach allows a anterolateral view of the anterior and middle cranial fossa



The purpose of this study is to demonstrate that patients undergoing minimally invasive approaches (transpalpebral and mini modified pterional) have no post operative complications after 6 hours of postoperative observation. Thus, in a non distant future, some of these patients could be discharged the same day after clipping of a cerebral aneurysm.

METHODS

Patients undergoing neurosurgery were divided in two groups. In the study group patients were submitted to a minimally invasive approach (transpalpebral mini frontoorbital craniotomy or modified minipterional craniotomy). All patients in this group were submitted to surgery starting at 8 o'clock in the morning. After 6 hours of the end of surgery, all patients underwent control CT scan and if the result was adequate, they were discharged from the ICU with no IV drugs. The hospital discharge occurred in the next day. The control group was patients that underwent classical pterional craniotomy with hospital discharge occurring in 5 days.

RESULTS

To date, 61 patients (86% female) were enrolled in the clinical trial. 36 patients were allocated to the study group (16 patients underwent transpalpebral access and 20 minipterional modified), and 25 in the control group. With a mean follow up of 6 months, no patient presented severe severe neurological/ clinical complication although 2 patients in the control group and 1 in the study group have shown ischemic infarcts on initial CT scan, with motor deficits which reversed during the postoperative course. Regarding the safety of early discharge, only 1 patient could not be discharged on the next day. So far we did not observe significant statistical difference between groups surgical/ outcome results.





CONCLUSIONS

Minimally invasive approaches appear to be safe when compared with classic ones. Through the study protocol we can infer that outpatient surgery for incidental aneurysms is not in a too distant future.

LEARNINGS OBJECTIVES

For countries like Brazil, the indirect demonstration of reduction in hospital costs through lower hospital stays is a breakthrough to provide better health for the entire population.