The alteration of intracranial pressure and imaging features after decompressive craniectomy with lattice duraplasty

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Introduction

To investigate the alteration of intracranial pressure and imaging features after decompressive craniectomy with lattice duraplasty in patients with severe head injury.

Methods

Fifty patients suffered from severe head injury with brain swelling were operated using Amercian standard large trauma craniotomy, the lattice duraplasty technique was applied intraoperatively. The pre- and post-operative ICP and imaging features were observed and recorded, followed by a statistical comparative study.

Results

The preoperative ICP was 37.6±7.9mmHg, the midline shift was 11.7±3.8mm, the patients with open ambient cistern were 3 cases. The postoperative ICP reduced to 14.1±6.3mmHg,the midline shift decreased to 4.6±2.7mm, and the patients with open ambient cistern were 31cases. Compared with preoperative data all postoperative data were improved significantly (P<0.01).

Conclusions

The technique of lattice duraplasty used in decompressive craniectomy could reduce ICP and midline shift meanwhile alleviate the ambient cistern compression.

Learning Objectives

To understand the technique and clinical value of decompressive craniectomy with lattice duraplasty for severe head injury.

References

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Lattice duraplasty in decompressive craniectomy