

# Resection of a bone invading meningioma and reconstruction of the skull In a single surgery using a custom made bone implant (Xiloc ®): a case report

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## Introduction:

We present a case of a 76-year old women with a history of resection of a extradural, bone invading meningioma in 2008. During follow up recurrence of the tumor was noticed.

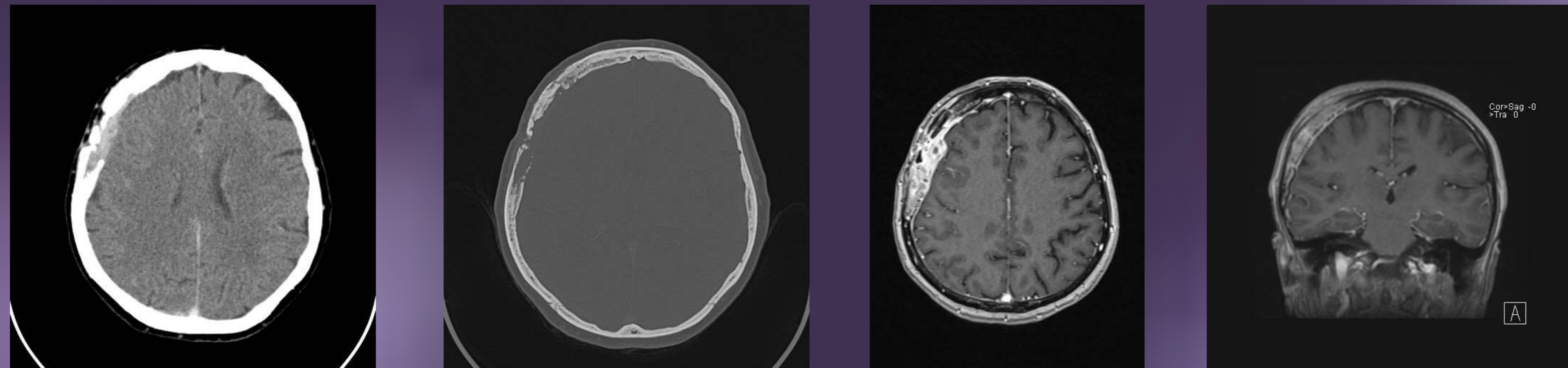


Fig 1-4: Preoperative CT and MRI showing the bone invading meningioma

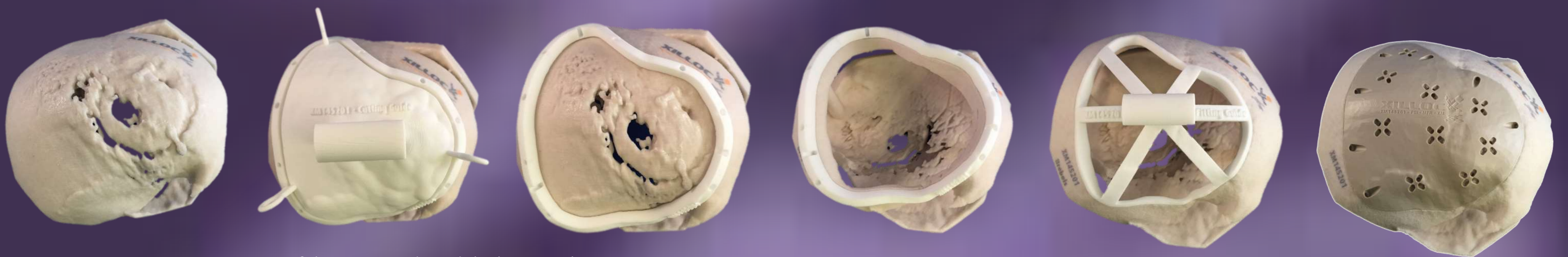


Fig 5-10: Preoperative construction of the cutting guide and the bone implant

## Materials and methods:

Preoperatively the margins of resection were defined. Based on the information a patient specific implant and a cutting mold were produced. We performed a craniectomy with a total resection of the invaded bone. First we used a preoperative fabricated surgical cutting guide to remove the invaded bone. Then we inserted the implant, which fitted perfectly. For reconstruction of the skull we used a custom made PEEK- bone implant (Xiloc ®).

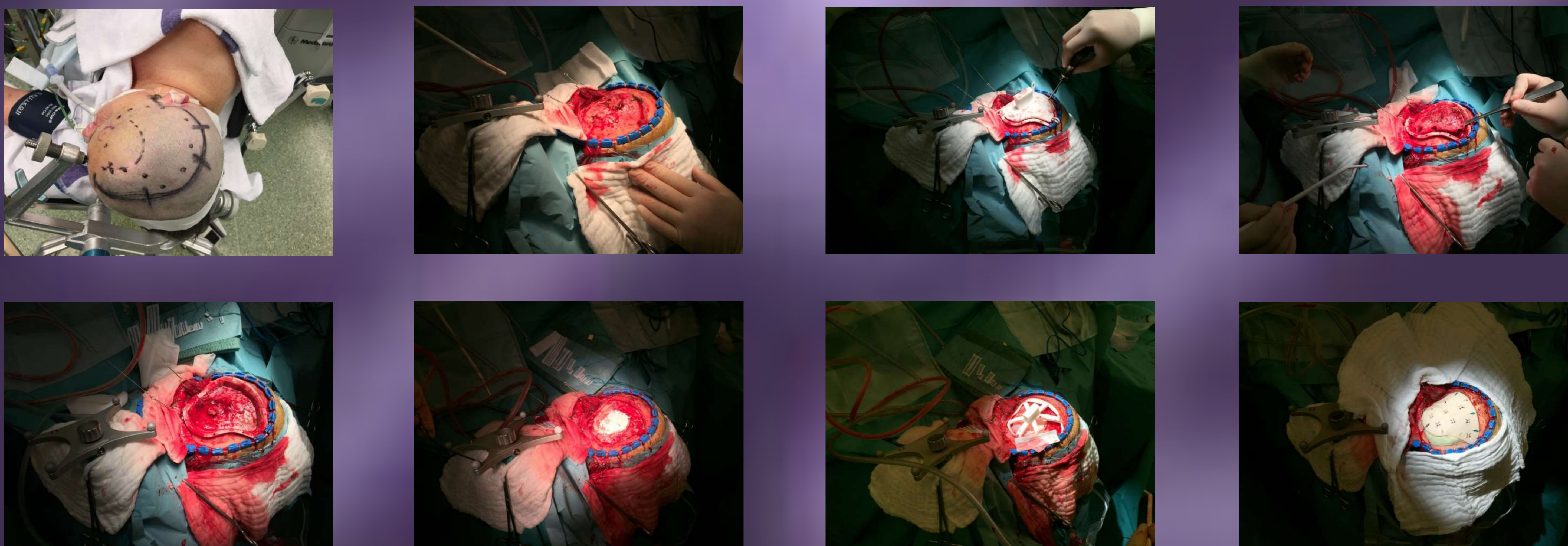


Fig 15-22: Images during surgery demonstrating the use of the custom made cutting guide and bone implant

## Results:

With this custom made bone implant we were able to resect a large piece of invaded bone and do a reconstruction in a single surgery. Postoperative imaging showed a good reconstruction of the skull.

## Conclusion:

Using a custom made cutting guide and implant allows us to resect a large piece of invaded skull and do a reconstruction with good esthetic result in a single surgery.

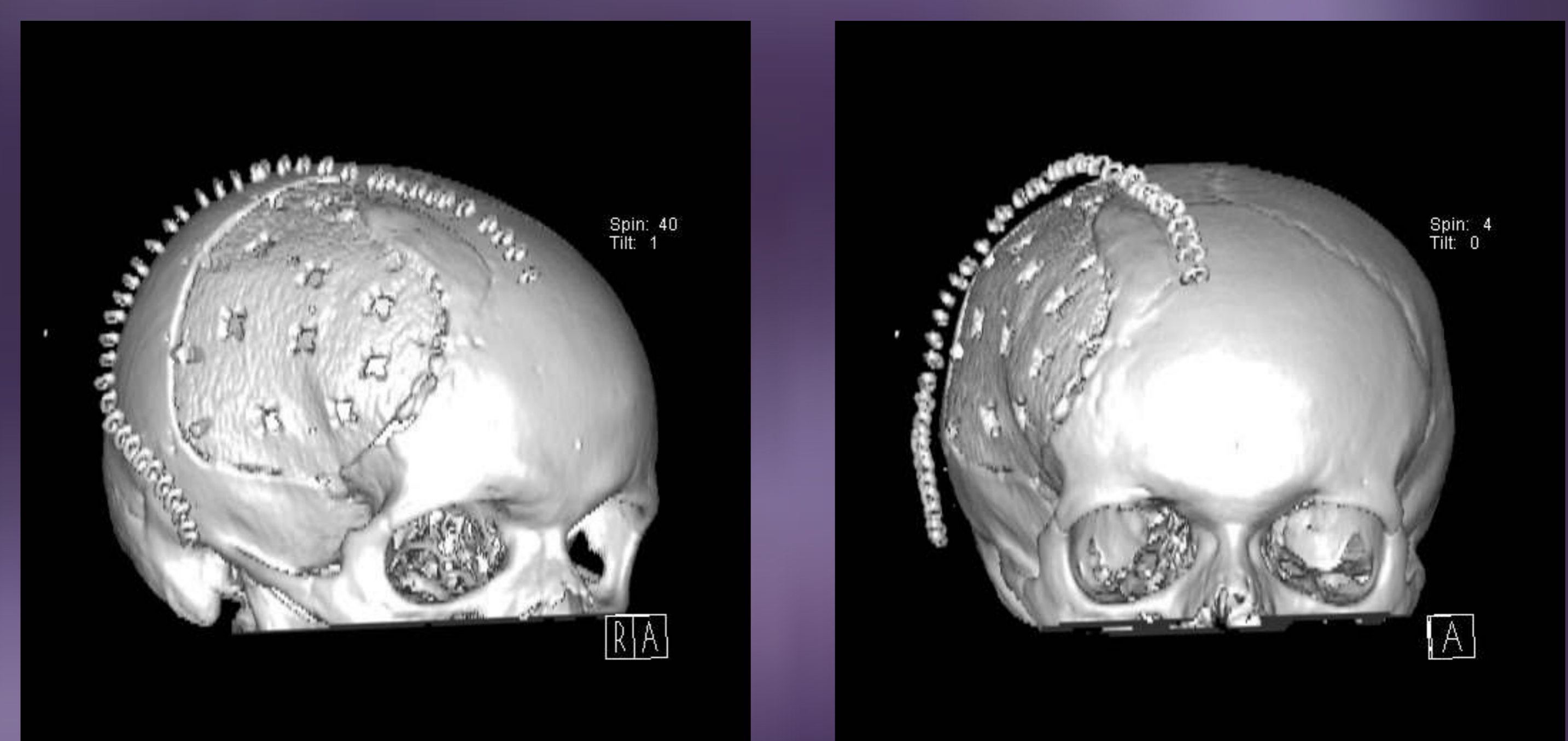


Fig 23-24: Postoperative 3D CT-scan