Surgical Management of Large Anterior Clinoidal Meningioma

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Anatomy

Kobayashi et al.
Extension
Patients

- 38 patients (2007-2015)
- 29 females & 9 males
- Mean age: 52Y (38-69)
- Mean follow up period: 28M
- Mean tumor diameter: 4.4 cm
- 6 recurrent cases & 3 previously irradiated
Approach

Dolenc in 32 cases

COZ: 6 cases
Case 1

F, 62Y. Epilepsy
Case 1

Post-op
Case 2

F, 45Y
Proptosis, unilateral visual failure
Case 2

Post-op
Case 3

F, 42Y
Headache, Left visual failure, dysphasia
Case 3

F, 42Y
Headache, Left visual failure, dysphasia
Case 3

Post-op
Case 4

81 Y, dense hemiparesis, aphasia, DVT, previous surgery, radiotherapy
Case 4

Post-op
Case 5

F, 60Y
Proptosis, diminished vision in the RT eye, partial 3\textsuperscript{rd} palsy

Pre-op

Post-op
Radiotherapy

Before SRS

9 months F/U

18 months F/U
Radiotherapy

Before SRS

7 months FU
Case 6

M 64 Y. progressive visual deterioration, epilepsy and severe mental changes.
3 previous surgeries
Case 6

Post-op
Patient refused 2nd stage
Results

- no mortality
- no ICA injury
- total resection 17/38 (44.7%)
- subtotal resection 7/38 (18.4%)
- partial resection 14/38 (36.8%)
- 10 patients received post-op radiotherapy (6 SRS & 4 fractionated RT)
## Complications

<table>
<thead>
<tr>
<th>Complication</th>
<th>N. Of patients</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNs deficit</td>
<td>Temporary 12</td>
<td>31.6%</td>
</tr>
<tr>
<td></td>
<td>Permanent 4 *</td>
<td>10.5%</td>
</tr>
<tr>
<td>CSF leak</td>
<td>2</td>
<td>5.3%</td>
</tr>
<tr>
<td>Pneumonia</td>
<td>2</td>
<td>5.3%</td>
</tr>
<tr>
<td>Bleeding</td>
<td>1</td>
<td>2.6%</td>
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<tr>
<td>wound infection</td>
<td>1</td>
<td>2.6%</td>
</tr>
<tr>
<td>Infarction (minor)</td>
<td>1</td>
<td>2.6%</td>
</tr>
<tr>
<td>Temporary DI</td>
<td>1</td>
<td>2.6%</td>
</tr>
</tbody>
</table>

*Permanent CN palsy: partial 3\textsuperscript{rd}, trochlear, V hyposthesia
Conclusion

• Total excision of clinoidal meningiomas is possible even with large tumors
• Primary goal of surgery is to improve the functional outcome
• Dolenc approach is ideal in dealing with these tumors.
Thank you