Meningiomas arising from the falcotentorial junction are extremely rare. Fewer than 50 cases have been reported in the literature. Because the tumor arises at the junction of dural folds in which the straight sinus and both torcular and arachnoid granulations are found, however, its infrequency in that region is not surprising. Most patients present with symptoms related to raised intracranial pressure, including headaches, papilledema, and visual and gait disturbances. Magnetic resonance imaging revealed a smooth, oval, or round mass, which was typically homogeneously enhancing. Angiography was useful in evaluating arterial supply for embolization, when possible, and determining the status of venous collateral supply and sinus patency. The authors detail the surgical technique used in all six patients. Postoperatively, patients experienced transient cortical blindness, which in all cases spontaneously resolved during the course of several days to weeks. They provide a comprehensive description of the presentation and surgical management of falcotentorial meningiomas.

Object. Meningiomas arising from the falcotentorial junction are rare. As a result, their clinical presentation and surgical management are not well described. During the past 3 years, the authors have treated six patients with falcotentorial meningiomas.

Methods. Most patients presented with symptoms related to raised intracranial pressure, including headaches, papilledema, and visual and gait disturbances. Magnetic resonance imaging revealed a smooth, oval, or round mass, which was typically homogeneously enhancing. Angiography was useful in evaluating arterial supply for embolization, when possible, and determining the status of venous collateral supply and sinus patency. The authors detail the surgical technique used in all six patients. Postoperatively, patients experienced transient cortical blindness, which in all cases spontaneously resolved during the course of several days to weeks. They provide a comprehensive description of the presentation and surgical management of falcotentorial meningiomas.

Conclusions. An excellent outcome can be expected when surgery is predicated on detailed preoperative neuroimaging and knowledge of the nuances of the surgical technique.

Key Words • meningioma • surgery • outcome • neurological deficit • radiographic feature

Meningiomas arising from the falcotentorial junction are extremely rare. Fewer than 50 cases have been reported in the literature. Because the tumor arises at the junction of dural folds in which the straight sinus and both torcular and arachnoid granulations are found, however, its infrequency in that region is not surprising. Most patients present with symptoms related to increased ICP and occasionally with visual symptoms related to the tumor’s occipital location. Because bilateral occipital retraction is required during the operation, transient cortical blindness routinely develops in cases involving larger-sized tumors. Patients should be informed of this transient neurological deficit prior to surgery.

Because these tumors grow slowly, collateral venous outflow channels for the deep venous system develop via the basal vein of Rosenthal, the petrosal, the precentral cerebellar, and the pontomedullary veins. Preoperative cerebral angiography is crucial to determine the status of the straight sinus because the lower falx cerebri, lateral tentorium, and upper falx cerebelli are excised with the tumor.

We have successfully resected six large meningiomas arising from the falcotentorial junction. We report the clinical, neuroimaging, intraoperative, and postoperative features obtained in six patients with falcotentorial junction meningiomas as well as a review of the literature.

CLINICAL MATERIAL AND METHODS

Patient Population

During the course of 3 years, we performed surgery in six patients with meningiomas arising from the falcotentorial junction (Figs. 1 and 2). Four were women and two were men, with a mean age of 42.5 years (range 38–48 years). The origin of tumor was confirmed intraoperatively in all patients, and diagnosis was established by histopathological examination.

Neuroimaging Studies

Lesions in all patients were evaluated using MR imaging and cerebral angiography. Patients underwent T1-weighted, T2-weighted, and Gd-enhanced MR imaging. Cerebral angiography included injection of the left subclavian artery, bilateral ICAs, ECAs, and VAs.

Operative Approach: “Surgeon’s Perspective”

Patient Positioning, Intubation, and CSF Diversion. Because most of these tumors are quite large at the time of diagnosis, preoperative angiography, embolization, and
imaging for surgical navigation systems are required. The choice of patient positioning (prone or semisitting) depends on the surgeon’s preference and the patient’s body habitus. Most surgeons prefer the prone position because it is safe and has a lower risk of air embolism. Obese patients, however, frequently only receive adequate ventilation in the absence of extreme airway pressures—hence, elevated transmitted venous pressures in the semisitting position. Patients considered for the semisitting position should be evaluated for patent foramen ovale preoperatively.

We prefer the prone position, the neck extended on the chest, and the head flexed on the neck. Armored endotracheal tubes should be used to avoid kinking and obstruction resulting from positioning or as the operation proceeds due to softening of the plastic tube. An external ventricular drain is routinely placed via the parietooccipital trajectory with the aid of the surgical navigation system. Patients considered for the semisitting position should be evaluated for patent foramen ovale preoperatively.

We prefer the prone position, the neck extended on the chest, and the head flexed on the neck. Armored endotracheal tubes should be used to avoid kinking and obstruction resulting from positioning or as the operation proceeds due to softening of the plastic tube. An external ventricular drain is routinely placed via the parietooccipital trajectory with the aid of the surgical navigation system.

Surgical Approach. A large U-shaped incision, based inferiorly, is marked to allow for a supra- and infratentorial craniotomy. Depending on the amount of the posterior fossa component, the foramen magnum is included in cases of larger tumors. The foramen magnum may be opened at the surgeon’s discretion when there is a significant infratentorial tumor component. We believe that this reduces resistance against inferior retraction of the cerebellar hemispheres necessary for dissection of infratentorial tumor. We take the bone flap off over the torcular and transverse sinuses in two components. First, the supratentorial bone flap is removed and then the dura mater over the torcular and transverse sinuses is dissected under direct vision prior to cutting the infratentorial bone flap. The dura is opened beyond the lateral margins of the tumor above and below the tentorium. First on one side and then the other, the tentorium is incised from immediately in front of the transverse sinus to its free edge anteriorly at the hiatus. This will eliminate arterial supply via the tentorial arteries, which cannot usually be embolized preoperatively. Next, depending on the angiography-documented status of the torcular and transverse sinuses, either the tentorium is incised from lateral to medial in front of the torcular (patent torcular and one or both transverse sinuses) or the sinuses are ligated using suture at the lateral margin of the tumor and the posterior fossa dura is opened (occluded torcular and transverse sinuses). Finally, the falx cerebri over the top of the tumor is incised as far as is practical, and usually the final incision through the free edge anteriorly can only be made with tumor debulking. This step completes the initial circumferential dural incisions around the tumor, with the falx cerebelli incised after more extensive tumor debulking superiorly.
Falcotentorial meningiomas

Frequently the surgeon will find that because supratentorially the meningioma has grown within the folds of the dura, only the expanded smooth surface of the tentorium and falx is seen. This dura can be incised and the tumor then debulked within the leaves of the dura. The infratentorial aspect of the meningioma is more often the portion separated from the cerebellum by the arachnoid plane, and this can be dissected via either the supra- or infratentorial route. It is helpful to dissect the tumor via both routes as the tumor gets smaller and the surgeon is approaching the last remaining tumor portion near the vein of Galen and deep venous complex. When the last remnant is approached at the anterior falcontentorial junction, care should be taken to identify the vein of Galen. It is safest to use a permanent aneurysm clip to take the vein with a small margin so that the fibrous stump of tumor can be excised behind it. When the remaining tumor stump is approached at the falcotentorial junction, it is difficult to separate from surrounding vascular structures. In cases in which angiography has confirmed the occlusion of the straight sinus, the vein of Galen can be clipped at its junction within the straight sinus in front of the falcotentorial junction. We prefer using permanent aneurysm clips to reduce the chance of tearing the vein. If the straight sinus is patent, which is unusual for larger tumors, a subtotal resection to preserve flow must be accepted.

Because many of these tumors are large and the operations time consuming, we recommend a two-surgeon team. Additionally, the occipital lobes are invariably retracted for hours intermittently and alternately while the resections proceed, and we cover the pial surface with rubber dams to avoid sticking of cottonoids or telfa that are left on for hours. Each patient and his/her family are informed that postoperative cortical blindness occurs in every case for several days; in our series it has spontaneously resolved in all patients.

In cases of significant cerebral swelling at the conclusion of resection, the bone flap can be left off and the patient positioned safely side to side until the bone can be replaced. In every procedure requiring more than 12 hours, the patient is left intubated overnight and the external ventricular drain used for pressure monitoring and ICP management.

RESULTS

Patient Characteristics

At admission, each patient exhibited progressive symptoms and signs of raised ICP. The most common complaints were headache (with or without nausea and vomiting) and visual disturbance. Other complaints included incontinence, personality changes, gait ataxia, dizziness, and mild cognitive impairments. The most common finding on physical examination was papilledema, sometimes accompanied by cranial nerve dysfunction (such as facial droop or homonymous hemianopsia). Patients typically reported progressively worse symptoms for several months before seeking medical attention (mean 29 months; range 0.5–4 years) (Table 1).

Neuroimaging Findings

Magnetic Resonance Imaging. Magnetic resonance imaging revealed a smooth, round, or oval mass in all patients (Figs. 1 and 2). On T₁-weighted images, five tumors were isointense and one was slightly hypointense to brain parenchyma. On T₂-weighted images, five lesions were slightly hyperintense and another was isointense. All tu-

<table>
<thead>
<tr>
<th>Case No.</th>
<th>T₁-Weighted</th>
<th>T₂-Weighted</th>
<th>Gd Enhancement</th>
<th>Hydrocephalus</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>isointense</td>
<td>slightly hyperintense</td>
<td>marked, homogeneous</td>
<td>yes</td>
</tr>
<tr>
<td>2</td>
<td>isointense</td>
<td>hyperintense</td>
<td>marked, homogeneous</td>
<td>no</td>
</tr>
<tr>
<td>3</td>
<td>isointense</td>
<td>heterogeneous</td>
<td>marked, homogeneous</td>
<td>no</td>
</tr>
<tr>
<td>4</td>
<td>isointense</td>
<td>hyperintense</td>
<td>marked, homogeneous</td>
<td>no</td>
</tr>
<tr>
<td>5</td>
<td>isointense</td>
<td>periventricular hyperintensity</td>
<td>marked, homogeneous</td>
<td>yes</td>
</tr>
<tr>
<td>6</td>
<td>isointense</td>
<td>slightly hyperintense</td>
<td>marked, homogeneous</td>
<td>yes</td>
</tr>
</tbody>
</table>
mors were found to have marked homogeneous enhance-
ment after administration of Gd. Hydrocephalus was pre-
sent in three patients (Table 2). The mean dimension of the
falcotentorial meningiomas was 5.2 × 4.5 × 4.3 cm (an-
teroposterior × transverse × craniocaudal) (Table 3).

Cerebral Angiography. The tumors in four patients
were fed by the branches of the ICA. Three tumors were
fed by choroidal arteries, and two tumors were supplied
by branches off the meningohypophyseal trunk. One was
supplied by the normal arterial branching from the PCA. In
one patient, no clear hypervascular arterial supply could be
detected (Table 3). Tumor stain was observed in four cases
and was largely homogeneous during the late arterial
phase of the arteriogram (Fig. 2C). When the tumor could
be observed, its margins were relatively distinct. In five pa-

tients, the straight sinus was occluded. In separate cases,
the vein of Galen or the transverse sinus was also occlud-
ed. In only one patient was venous sinus occlusion absent.

Although preoperative embolization was considered for
each patient, it was only performed successfully in one.
This patient underwent partial embolization of the tumor,
involving the occipital and middle meningeal arteries. Em-
bolization was not undertaken in most cases because the
feeding vessels were either too small or inaccessible.

Operative Results and Long-Term Outcome

No surgery-related mortality occurred in our series, and
all patients’ complaints and neurological deficits at the
time of admission resolved postoperatively. All patients,
however, experienced transient cortical visual deficits.
Five patients suffered cortical blindness, either complete
or only light perception ability. In one patient a left ho-

monymous hemianopsia occurred. In all cases, these visu-
el deficits resolved almost completely by the time of dis-
charge.

Although the operative time was long (range 13–23
hours) (Table 4), there were no unexpected complications.
In half of the cases, a gross-total resection was achieved
with complete macroscopic removal of the tumor (Simp-
son Grade I),23 as confirmed by postoperative imaging. In
the three cases in which a subtotal resection was per-
formed (Simpson Grade II), the patients subsequently un-
derwent gamma knife surgery (Table 5).

No tumor recurred during a mean follow-up period of
25 months (range 15–36 months). Furthermore, all post-
operative visual deficits resolved fully within several
months.

DISCUSSION

We have reported our experience in treating six patients
with falcotentorial meningiomas.
The mean age of the patients in our series was 42 years,
which closely approximates the mean reported age 44.4
years,6,222 for patients with posterior fossa meningiomas.
We also found that 66% (four of six cases) of falcotentor-
tial meningiomas occurred in women, which is also con-
sistent with previous reports regarding meningiomas of all
locations. The mean symptom duration before admission
was 29 months, which is fairly long but is consistent with
the extremely large size of the tumors observed here.

Most patients with falcotentorial meningiomas present
with complaints of headache and/or visual deficits. Other
common complaints include gait disturbance and cogni-
tive impairment. On physical examination, elevated ICP is
often manifested by papilledema (two of six patients in our
series) or cranial nerve deficits. These findings are con-
sistent with those summarized previously by Asari, et al.3

Overall, the imaging characteristics of falcotentorial
meningiomas are similar to those of meningiomas in other
locations. On $T_1$-weighted images, they are uniformly iso-

tense with surrounding parenchyma, but with a clear
peritumoral rim. On $T_2$-weighted images, falcotentorial
meningiomas can range from slightly hypointense to
slightly hyperintense. After administration of Gd, there
is marked, homogeneous enhancement, with variable dural
enhancement.

<table>
<thead>
<tr>
<th>Case No.</th>
<th>Tumor size (cm)</th>
<th>WHO Grade</th>
<th>Vascular Supply</th>
<th>Venous Occlusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6.6 × 6.6 × 7</td>
<td>I</td>
<td>meningohypophysal trunks (bilat) medial &amp; lat choroidal vessels</td>
<td>straight sinus</td>
</tr>
<tr>
<td>2</td>
<td>7 × 4.9 × 3.8</td>
<td>I</td>
<td>Lt PCA (P1/P2)</td>
<td>straight sinus</td>
</tr>
<tr>
<td>3</td>
<td>5.5 × 4 × 2</td>
<td>I</td>
<td>no evidence of hypervascular mass</td>
<td>internal cerebral veins, vein of Galen, straight sinus, Lt transverse sinus</td>
</tr>
<tr>
<td>4</td>
<td>1.9 × 1.7 × 2.3</td>
<td>I</td>
<td>Lt meningohypophysal trunk</td>
<td>vein of Galen</td>
</tr>
<tr>
<td>5</td>
<td>3.3 × 3.6 × 4.8</td>
<td>III</td>
<td>rt ICA (ferrotol tract), branch of Lt &amp; rt occipital arteries, Lt middle meningeal artery</td>
<td>straight sinus</td>
</tr>
<tr>
<td>6</td>
<td>6.9 × 6.4 × 5.9</td>
<td>II</td>
<td>pial branches from Lt anterior choroidal artery, distal parietal occipital artery, lateral posterior choroidal artery</td>
<td>none</td>
</tr>
</tbody>
</table>

* WHO = World Health Organization.
Cerebral angiography reveals that falcotentorial menin
giomas usually derive their vascular supply from the ICA,
ECA, and/or the PCA. Supply from the ICA included the
meningohypophysial branches off the posterior trunk,
branches off the inferolateral trunk, and the anterior cho-
roidal artery. The ECA supply came mainly from branch-
es of the middle meningeal artery and ophthalmic arteries.
Posterior cerebral artery supply was derived from the me-
dial and lateral choroidal arteries. In several cases, angiog-
raphy of the tumor resulted in clear tumor stain or hyper-
vascular blush seen in the late arterial phase. In a majority
of cases reported on in the literature, either the vein of

<table>
<thead>
<tr>
<th>Case No.</th>
<th>Simpson Resection Grade</th>
<th>Complication</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I</td>
<td>none</td>
</tr>
<tr>
<td>2</td>
<td>II</td>
<td>cortical blindness</td>
</tr>
<tr>
<td>3</td>
<td>II</td>
<td>cortical blindness</td>
</tr>
<tr>
<td>4</td>
<td>II</td>
<td>homonymous hemianopsia</td>
</tr>
<tr>
<td>5</td>
<td>I</td>
<td>none</td>
</tr>
<tr>
<td>6</td>
<td>I</td>
<td>none</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Examination</th>
<th>Immediate Postop</th>
<th>Discharge</th>
<th>Radio-surgery</th>
</tr>
</thead>
<tbody>
<tr>
<td>bilat light perception, finger counting, mild diplopia</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>lt: 20/800; rt: 20/800; finger counting yes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>rt: 20/400; lt: 20/200; lt hemianopsia yes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>normal visual fields yes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20/30 bilat</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>normal visual fields</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5
Postoperative and follow-up results

Table 6
Selected literature review: previously reported falcotentorial meningiomas*

<table>
<thead>
<tr>
<th>Authors &amp; Year</th>
<th>Age (yrs), Sex</th>
<th>Lesion Size (cm)</th>
<th>Feeding Arteries (branch)</th>
<th>Venous Occlusion</th>
<th>Op approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Halpert, et al., 1949</td>
<td>20, F</td>
<td>5</td>
<td>ND</td>
<td>ND</td>
<td>rt frontal</td>
</tr>
<tr>
<td>Sachs, et al., 1962</td>
<td>50, F</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>rt occipital transtentorial</td>
</tr>
<tr>
<td>Zingesser &amp; Schecter, 1964</td>
<td>45, F</td>
<td>5</td>
<td>ND</td>
<td>ND</td>
<td>rt occipital transtentorial</td>
</tr>
<tr>
<td>Lazar &amp; Clark, 1974</td>
<td>60, F</td>
<td>8</td>
<td>ND</td>
<td>ND</td>
<td>rt occipital transtentorial</td>
</tr>
<tr>
<td>Papo &amp; Salvolini, 1974</td>
<td>56, F</td>
<td>tangerine-sized plum-sized</td>
<td>tentorial, PICA, &amp; SCA occipital</td>
<td>ND</td>
<td>rt occipital transtentorial</td>
</tr>
<tr>
<td>Carey, et al., 1975</td>
<td>57, F</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>rt occipital transtentorial</td>
</tr>
<tr>
<td>Nishiura, et al., 1981</td>
<td>49, F</td>
<td>ND</td>
<td>posterior choroidal, medial &amp; posterior meningeal</td>
<td>vein of Galen, ICV</td>
<td>rt occipital transtentorial</td>
</tr>
<tr>
<td>Suzuki, et al., 1984</td>
<td>59, F</td>
<td>4.5</td>
<td>ND</td>
<td>ND</td>
<td>interhemispheric transtentorial</td>
</tr>
<tr>
<td>Ohata, 1985</td>
<td>50, F</td>
<td>4</td>
<td>tentorial</td>
<td>posterior choroidal, medial &amp; posterior meningeal</td>
<td>vein of Galen</td>
</tr>
<tr>
<td>Misu, et al., 1987</td>
<td>45, F</td>
<td>ND</td>
<td>tentorial</td>
<td>straight sinus</td>
<td>rt occipital transtentorial</td>
</tr>
<tr>
<td>Araga, et al., 1989</td>
<td>59, F</td>
<td>3</td>
<td>PCA</td>
<td>ND</td>
<td>biocapital</td>
</tr>
<tr>
<td>Toyota, et al., 1990</td>
<td>58, M</td>
<td>2.5</td>
<td>tentorial</td>
<td>ND</td>
<td>rt parietooccipital interhemispheric</td>
</tr>
<tr>
<td>Yamazaki, et al., 1991</td>
<td>41, F</td>
<td>3</td>
<td>posterior choroidal, medial &amp; posterior meningeal</td>
<td>vein of Galen</td>
<td></td>
</tr>
<tr>
<td>Odake, 1992</td>
<td>47, M</td>
<td>ND</td>
<td>pericallosal</td>
<td>straight sinus</td>
<td>biocapital</td>
</tr>
<tr>
<td>Asari, et al., 1994</td>
<td>63, F</td>
<td>4.6</td>
<td>tentorial</td>
<td>straight sinus, vein of Galen</td>
<td>rt occipital transtentorial</td>
</tr>
<tr>
<td>26, M</td>
<td>5.2</td>
<td>tentorial</td>
<td>straight sinus, vein of Galen</td>
<td>rt occipital transtentorial</td>
<td></td>
</tr>
<tr>
<td>38, F</td>
<td>4.5</td>
<td>PCA &amp; SCA</td>
<td>straight sinus</td>
<td>rt occipital transtentorial</td>
<td></td>
</tr>
<tr>
<td>66, F</td>
<td>3.8</td>
<td>tentorial</td>
<td>patent</td>
<td>rt occipital transtentorial</td>
<td></td>
</tr>
<tr>
<td>62, M</td>
<td>5</td>
<td>PCA &amp; SCA</td>
<td>straight sinus, vein of Galen, &amp; ICV</td>
<td>rt occipital transtentorial</td>
<td></td>
</tr>
<tr>
<td>67, F</td>
<td>5.6</td>
<td>tentorial</td>
<td>vein of Galen</td>
<td>rt occipital transtentorial</td>
<td></td>
</tr>
<tr>
<td>30, M</td>
<td>9.8</td>
<td>PCA &amp; SCA</td>
<td>vein of Galen</td>
<td>rt occipital transtentorial</td>
<td></td>
</tr>
<tr>
<td>Gokalp, et al., 1995†</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
</tr>
<tr>
<td>Okami, et al., 2001</td>
<td>64, F</td>
<td>2.5</td>
<td>ND</td>
<td>ND</td>
<td>rt occipital transtentorial</td>
</tr>
<tr>
<td>60, F</td>
<td>5</td>
<td>ND</td>
<td>ND</td>
<td>rt occipital transtentorial</td>
<td></td>
</tr>
<tr>
<td>53, F</td>
<td>5</td>
<td>ND</td>
<td>ND</td>
<td>rt occipital transtentorial</td>
<td></td>
</tr>
</tbody>
</table>

* ICV = internal cerebral vein; ND = not described; PICA = posterior inferior cerebellar artery.
† The seven cases in this study were not described individually.
Galens or the straight sinus is occluded.\textsuperscript{3} Identifying occlusion and the development of the collateral venous channels is extremely important for successful resection of falcotentorial meningiomas.\textsuperscript{6} Although preoperative embolization is a useful adjuvant in the surgical treatment of meningiomas, we found that in only one case was the supplying artery amenable to embolization. Many of the vessels supplying the tumor were either too small or technically inaccessible for safe embolization.

Okami and colleagues\textsuperscript{18} have described the occipital transtentorial and the combined midline occipital–suboccipital approach for falcotentorial meningiomas. Several approaches have been described including occipital transtentorial, infratentorial supraocipital,\textsuperscript{10,12,27} biparietooccipital craniotomy in the sea lion position,\textsuperscript{26} and a combined supra-/infratentorial–transsinus approach as described by Sekhar and Goel\textsuperscript{24} and Ziyal et al.\textsuperscript{32} The occipital transtentorial approach allows for good visualization of the internal cerebral veins and the posterior and lateral midbrain, has a low risk of air embolism, and provides a relatively wide exposure of the lesion. We prefer the combined supra-/infratentorial approach because most of these tumors are quite large at presentation. The wide exposure achieved using a torcular craniotomy that extends far laterally reduces compression of the occipital lobes against the dural openings, which is important during prolonged retraction. The availability of exposure above and below the tentorium also provides the surgeon with more intraoperative options and allows one to change the plan of attack when troublesome bleeding occurs. Once the tumor is resected down to a stump attached to the junction of the vein of Galen and straight sinus, we prefer to occlude the former by placing a permanent aneurysm clip before coagulation and cutting.

Overall, we had no surgery-related mortality in this series. The most common postoperative neurological deficit was cortical blindness caused by retraction of the occipital lobe. All patients, however, experienced marked improvement by discharge and full recovery several months later.

CONCLUSIONS

Meningiomas arising from the falcotentorial junction are quite rare. We describe in detail the clinical and neuroimaging features as well as surgical management of these lesions. We also document the common occurrence of transient postoperative cortical blindness resulting from retraction of the bilateral occipital lobes. Our findings are consistent with contemporary knowledge disseminated in the recent literature. Overall, falcotentorial meningiomas can be safely managed by evaluating thorough neuroimaging studies and obtaining a wide exposure via a combined supra-/infratentorial–torcular craniotomy technique. In cases involving larger tumors, a two-surgeon team is recommended for an efficient tumor removal and has become a standard approach at our institution.

References
Falcotentorial meningiomas


Manuscript received May 9, 2003. Accepted in final form June 2, 2003.
Address reprint requests to: Alfredo Quinones-Hinojosa, M.D., Department of Neurological Surgery, University of California at San Francisco, 505 Parnassus Avenue, M-779, San Francisco, California 94143-0112. email: quinones@neurosurg.ucsf.edu.