

## EPIDURAL ABSCESS

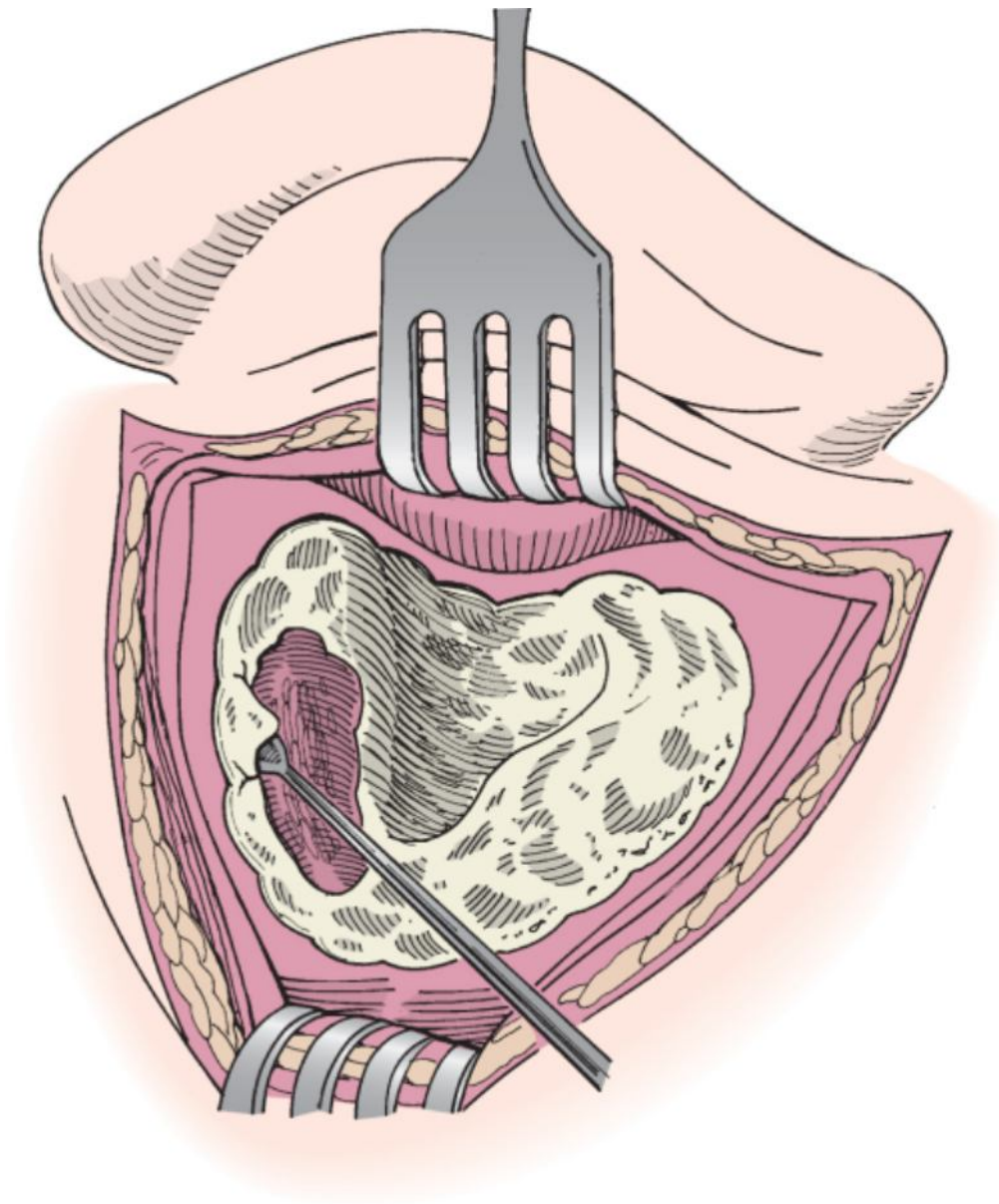
### **INDICATIONS AND PATIENT SELECTION**

Patients with coalescent mastoiditis or chronic suppurative otitis media with cholesteatoma are at risk for bony erosion into the intracranial epidural space and abscess formation. If the erosion occurs superiorly through the tegmen, the abscess will form in the middle fossa. Similarly, if the erosion occurs posteriorly, the abscess will form in the posterior fossa, often around the sigmoid sinus. Some authors refer to abscesses that are adjacent to the sigmoid sinus as perisinus abscesses or empyemas. One recent large series of patients with epidural abscesses found that 20% were secondary to otogenic infection, in contrast to almost two thirds that were secondary to infections of the paranasal sinuses.<sup>[22]</sup>

Patients with an otogenic epidural abscess classically have worsening temporoparietal headache in the region of the affected ear,<sup>[23]</sup> with or without mental status changes such as lethargy. However, "silent" abscesses may also be discovered on temporal bone CT performed to assess the condition of the mastoid and middle ear.<sup>[24]</sup> If an intracranial complication is suspected from the clinical or CT findings, MRI provides valuable additional information about the location and extent of such complications. When loculated purulent exudate, granulation tissue, or bony erosion is noted on mastoidectomy, evaluation of the integrity of the bony tegmen and surrounding bony confines of the intracranial space is necessary to rule out an epidural abscess. An epidural abscess may occur in association with other intracranial complications of otitis media, such as thrombophlebitis or thrombosis of the lateral or sigmoid sinus, and hence the otologist should have a high index of suspicion with regard to these other serious conditions.

### **SURGICAL TECHNIQUE**

An isolated epidural abscess secondary to mastoiditis can usually be evacuated by a complete mastoidectomy, with careful unroofing of the affected bony plates to expose but not enter the dura (Fig. 120-3). Purulent material and granulation tissue should be sent for immediate Gram stain, culture, and sensitivity testing. The mastoid is then irrigated with antibiotic solution. If the abscess was not diagnosed preoperatively, follow-up imaging should be conducted to evaluate for the possible presence of other intracranial complications.



**Figure 120-3** Exposure and drainage of an epidural abscess with wide exposure of the middle fossa dura.

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