6 Convexity, Parasagittal, and Falx Meningiomas

6.1 Incidence and Localization

6.1.1 Convexity and Parasagittal Tumours

Tumours of the convexity and those located in the parasagittal area are the most frequent of the intracranial meningiomas. Together they account for about 40% of all meningiomas, and about 50% of them occur in women [128]. Convexity meningiomas are attached to the dura of the convexity and are most prevalent in the parietal and frontal regions. Tumours in the temporal and occipital areas are relatively rare. Parasagittal meningiomas are located at the point where the dura of the convexity continues in the dura forming the lateral wall of the superior sagittal sinus. They are generally located along the middle third of the sinus: meningiomas located along the anterior third are less frequent and along the posterior portion are relatively rare. The sinus itself is often infiltrated by the tumour.

6.1.2 Falx Meningiomas

Falx meningiomas are relatively uncommon, constituting about 5% of all intracranial meningiomas, with a high frequency in women (ca. 90% of patients according to Jacobs et al. [128]). They are generally attached to the anterior and middle portion of the falx, growing bilaterally in about a third of patients. Convexity, parasagittal and falx meningiomas are frequently very large when diagnosed. Tumours more than 7 cm in diameter occur, sometimes causing considerable atrophy of the surrounding brain. Epileptiform seizures and/or a slowly progressive psychosyndrome are the most frequently presenting symptoms.

6.2 Computed Tomography and Magnetic Resonance Imaging

Using computed tomography (CT) and/or magnetic resonance imaging (MRI), the diagnosis of these meningiomas and the amount of compression of brain parenchyma poses no great difficulty. Occasionally growing with their long axis parallel to the vault (Figs. 6.1, 13.1), the tumours appear as roughly rounded, well-circumscribed masses (Figs. 6.2–6.7), commonly showing a broad surface of contact with the meninges of the convexity and/or falx.

Fig. 6.1a–f. Frontoparietal convexity endotheliomatous meningioma. a, b MRI (SE 500/50). Study after Gd-DTPA. The tumour displays an evident enhancement. There is a small cyst (black area —) in the peripheral portion of the meningioma close to the cerebral parenchyma. Note the thickened dura extending far from the globoid mass due to a flat portion of the tumour (arrow from circle). c Angiogram. There is no pathological vascularization on the angiogram of the internal carotid artery (ICA). d,e Very large middle meningeal artery (arrows) supplying the tumour. f Angiogram after embolization showing occlusion of the middle meningeal artery (arrow)