Meningiomas are the most common primary brain tumours in adults and are therefore relevant for general practitioners. Most meningiomas are benign and neurosurgical resection offers the best chance of cure. However, complete resection is not achievable in many patients. This accounts for a relevant rate of tumour recurrences within 15 years of follow up. In atypical and anaplastic meningiomas of WHO grade II and III time to recurrence is dramatically shorter and these tumours need multimodal treatment strategies including postoperative radiotherapy. Various systemic treatments have occasionally been used as salvage therapy, but were essentially not effective. Only recently, Sunitinib, a small thyrosine kinase inhibitor as well as bevacizumab, a therapeutic antibody, have shown more promising results in highly pretreated, refractory meningioma patients.