

## **Routine brain MRIs may not be needed after meningioma surgery**

A meningioma is a very common form of a brain tumor that tends to affect elderly patients and women. Most patients with meningiomas do not need any treatment, however, certain groups undergo surgical removal of the tumor. This group of patient tends to do well after the surgery, but may be at risk for a tumor recurrence many years after the initial operation. Hence, many of these patients undergo routine brain MRIs to evaluate for the return of their previously removed brain tumor.

In our practice, we had our suspicion about the logic behind routine MRIs for patients without any symptoms. These patients tended to have negative brain MRIs and even when their head imaging noted a tumor recurrence, would often not undergo any treatment until they had become symptomatic. In short, there is significant hesitancy to operate on these patients while they show no symptoms. This tendency not to operate is even more dramatic amongst elderly patients in whom any operation can be associated with higher risk. We wanted to formally take a look at this issue and help determine whether or not our elderly patients who had no symptoms after their tumor removal needed routine brain MRIs.

We reviewed the cases of patients undergoing surgical removal of a meningioma at our hospital between 2001-2013 with a focus on the elderly. We found 45 patients that met these criteria and who returned to our institution after the operation for at least two additional years. We saw that each patient on average underwent more than 4 brain MRIs at a cost of over \$2,000 per person. Most patients (93%) had no concerning findings on their brain imaging. A small subset (7%) had tumor-related findings on their MRIs while not showing any concerning symptoms. None of these patients underwent another round of brain surgery due to lack of symptoms. Overall, we found that the routine brain imaging that we performed for these patients came at a great cost and did not affect the way they were managed.

We believe that routine brain MRIs after most cases of meningioma removal may not be necessary and potentially wasteful. This practice is associated with a substantial medical cost and not supported by significant evidence. More studies are needed to determine when and whom to image after the removal of this brain tumor.

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### **Publication**

[Short-term postoperative surveillance imaging may be unnecessary in elderly patients with resected WHO Grade I meningiomas.](#)

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