This 62 year old woman was diagnosed with left breast cancer seven months earlier. A follow-up PET-CT performed to assess her response to treatment showed an incidental area of increased tracer uptake in the pituitary fossa with widening of the sella (maximum SUV 16.8) (Figs. 1 and 2, arrow). A brain MRI showed an enlarged pituitary gland measured at 1.4 X 1.3 X 1.0 cm. Subsequent blood work revealed an elevated serum prolactin level at 190ng/mL (Normal: 1.9-25). The mass was resected and a pituitary adenoma was confirmed.

How did the PET-CT help?

The PET-CT scan identified the pituitary adenoma before it enlarged further and produced symptoms. Incidental pituitary adenomas are a rare finding on PET scans, with a reported incidence of less than 0.1%. These often show markedly elevated tracer uptake, with macroadenomas generally showing more uptake than microadenomas.1-3

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