

Dr. Farooki reports receiving speaking fees from Procter & Gamble and Novartis. No other potential conflict of interest relevant to this letter was reported.

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Growth of a Meningioma in a Transsexual Patient after Estrogen–Progestin Therapy

TO THE EDITOR: A 28-year-old male-to-female transsexual patient presented with severe headache and visual disturbances; clinical examination showed visual impairment, with bitemporal infe-

rior visual-field defects, papilledema of the left eye, and optic atrophy of the right eye. The patient was euphoric and confused. Personality changes noted during the previous 4 months had been at-

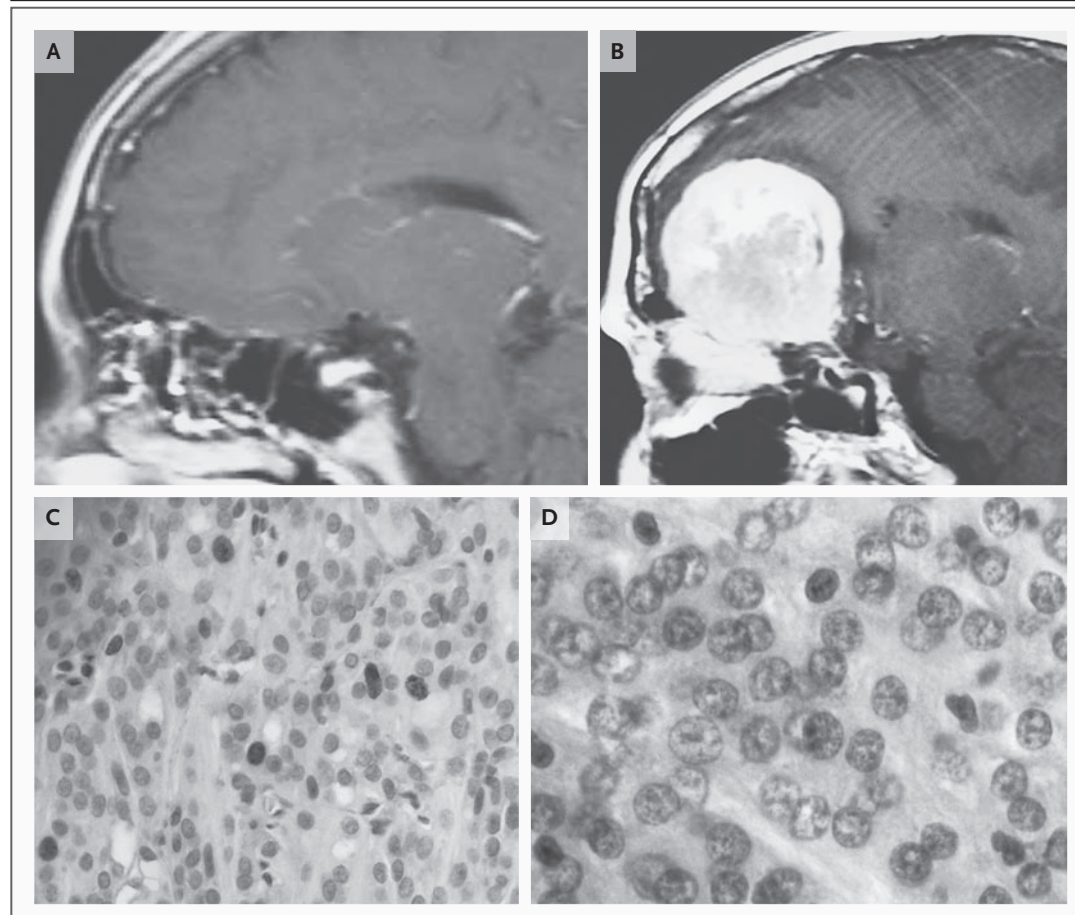


Figure 1. MRI Scans and Histologic Findings.

Panel A shows a sagittal contrast-enhanced MRI scan obtained for screening for hyperprolactinemia, and Panel B a sagittal contrast-enhanced MRI scan showing a giant olfactory-groove meningioma in the same patient after a high-dose estrogen–progestin regimen for management of sex reassignment. Histologic analysis revealed a meningothelial meningioma (World Health Organization grade I) with a Ki-67 index of 5%, shown in Panel C, and an MIB-1 index of 3.4% per high-power field, shown in Panel D.

tributed by family members to the new gender identity of the patient. The patient had been taking a feminizing endocrine regimen of ethinyl estradiol (100 μg per day orally) and cyproterone acetate (100 mg per day orally) for the previous 5 years. After 2 years of hormone treatment, the patient underwent gonadectomy for sex reassignment, and estradiol-17-undecanoate (100 mg twice weekly administered intramuscularly) was added to the patient's therapy for the following 2 years. A cerebral magnetic resonance imaging (MRI) scan obtained 3 years before presentation to evaluate an increased prolactin level (42 ng per milliliter) was negative (Fig. 1A). On admission, a contrast-enhanced MRI scan revealed a giant olfactory-groove meningioma (Fig. 1B). After a radical tumor resection, the histologic diagnosis was meningothehal meningioma (World Health Organization grade I), which was negative for estrogen receptors, with a Ki-67 index of 5% and an MIB-1 index of 3.4% per high-power field (Fig. 1C and 1D, respectively). At 1 year of follow-up, the patient was continuing with the hormone therapy at a lower dose (50 μg of ethinyl estradiol per day and 100 mg of spironolactone per day), and a contrast-enhanced MRI scan showed no recurrence of the tumor. The patient's behavioral changes had regressed, and the visual impairments were ameliorated.

Cross-sex hormonal therapy is an important component of the endocrine regimen in transsexual people. Reported adverse effects in this population include venous thromboembolytic disease,¹ breast cancer,² lactotroph hyperplasia,³ and an increase in prolactin levels with possible growth of prolactinomas.⁴ The role of sex hormones in the development of intracranial meningioma has been

proposed as one hypothesis to explain the overabundance of such tumors in women. The risk of meningioma is increased among postmenopausal women who have a history of using hormone-replacement therapy and among women who have used long-acting contraceptives.⁵ In this case, a causal association between the growth of a meningioma and the hormone therapy was suggested by the negative cerebral MRI scan obtained 3 years before presentation. This report of abrupt growth of an intracranial meningioma after use of high doses of steroid therapy in a transsexual patient should prompt clinicians caring for transsexual patients to consider the possibility of such an event.

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