

Is cyproterone acetate causing intracranial meningiomas?

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Madam, cyproterone acetate (CPA) is an anti-androgenic medication with progestin like properties. It is used in treating acne, hirsutism, poly cystic ovarian syndrome (PCOS) and in birth control pills in females and in prostate cancer in males. It is used with or without ethinyl estradiol and works by suppressing the action of testosterone on the tissues. This drug gained popularity as it was the first anti-androgen drug. Despite its efficacy, it is not free from side effects including headache, migraine, depression, weight gain, and elevated liver enzymes.¹ Although unavailable in the United States, cyproterone acetate has been used internationally for many years.²

However, some recent studies published on this drug have raised serious concerns. A study by Weill et Al. pointed out the association between use of high doses of cyproterone acetate and intracranial meningiomas in women.³ In this cohort study, a crude relative risk of 5.2 (95% CI 3.2 to 8.6) and adjusted hazard ratio of 6.6 (95% CI 4.0 to 11.1) was found between CPA and meningiomas. This relation was dose dependent, and the risk decreased when discontinued the use of CPA. This is not the only study that reported these relations. A study carried out by Gil, in as early as 2011, pointed out a similar causal connection,⁴ but had less impact due to low power. Moreover, people exposed to CPA experienced earlier onset of meningioma.⁵

This worrying revelation raises the question, is the drug safe to be prescribed.

CPA is easily available in Pakistan like many other countries. Hyperandrogenic disorders are high in Pakistan and physicians find this drug effective against those conditions. We suggest that this drug be prescribed with caution and in low doses. CPA therapy conjugated with

estradiol should be preferred as it had fewer adverse effects. The patients who take CPA in high doses should be made aware of the high risks of the drug. If prolonged use is necessary, regular MRIs should be considered and prompt measures should be taken in case of any unprecedented finding. In patients with a history of meningiomas, this drug should be strictly restricted. Many other drugs, such as spironolactone⁶ are being tested for use as a safety relay for CPA. However, more extensive research is required to find safe alternatives for cyproterone acetate.

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