

A case of drug-induced intracranial hypertension due to isotretinoin

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Introduction

Drug-induced intracranial hypertension (DIH) is an important but uncommon adverse effect of certain medications prescribed in dermatology.

Case description

- A 24-year-old female with acne vulgaris on isotretinoin (20mg daily) self-reported a moderately severe, constant, dull-aching frontal headache and dizziness during week 4 of therapy.
- The headache was worse at the time of awakening and in the supine position. There was no nausea, vomiting, blurred vision, pulsatile tinnitus or seizures.
- The patient was overweight but had no co-morbidities or relevant past history. She was not on any other medication including doxycycline or oral contraceptives concomitantly.
- Neuroimaging revealed partially empty sella and minimal prominence of the subarachnoid space surrounding the optic nerves bilaterally (Figs 1,2). Based on these findings she was advised to undergo fundoscopic examination which was normal and did not reveal any papilledema.
- Immediate discontinuation of isotretinoin brought a gradual but complete subsidence of symptoms within 5 days. She was instead treated with topical anti-acne therapy, oral azithromycin and salicylic peels.

Figures



Fig. 1
T2W Axial MRI of the brain showing minimal prominence of the subarachnoid space (red arrow) surrounding the optic nerves bilaterally.



Fig. 2
T1W Sagittal MRI of the brain showing partially empty sella (red arrow) with posteriorly pressed pituitary gland suggestive of increased intracranial pressure.

Discussion

- The literature describes specific criteria for diagnosing DIH, which the dermatologist must be aware of while prescribing drugs known to have a high-strength of association with DIH (vitamin-A derivatives especially isotretinoin, tetracycline-class antibiotics etc).
- The time of onset and subsidence of signs/symptoms should be correlated with the data mentioned in the literature and the drug's pharmacokinetics.
- Papilledema may not be present in early cases and is not a mandate for diagnosis, though ideally lumbar puncture demonstrating high CSF opening pressure would be confirmatory.
- When suspected, immediate discontinuation of the offending medication, introducing treatment alternatives and prompt referral for radiological, neurological and ophthalmic evaluation are some important measures to mitigate the risk of vision loss.
- Especially when prescribing such drugs in patients with concomitant risk factors (obese females of child-bearing age), a certain index of caution, patient counselling and reporting any adverse events are important.

Conclusions

In patients being prescribed drugs known to have a high-strength of association with DIH (isotretinoin, tetracycline-class antibiotics etc.) any unexplained headaches or visual symptoms should alert the treating dermatologist for possible DIH who should initiate prompt and appropriate management.

References

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