Dapsone-induced acute myopia

Sir,

Acute acquired myopia is a rare entity in ophthalmology practice. The most common cause of acute acquired myopia is drug-induced myopia. There are many drugs that have been reported to interfere with near or reading vision, produce blurring, decrease accommodation and cause diplopia. This list includes: sulfa analogs, ganglion channel blockers, tetracycline, carbonic anhydrase inhibitors, corticosteroids and hydrochlorothiazide.[1] Dapsone, however, has not been reported to produce such an adverse effect.[2] This report documents a case of dapsone-induced acute myopia.

A 24-year-old woman presented with a hypopigmented anesthetic patch over the left elbow that was diagnosed as borderline tuberculoid Hansen's disease and she was started on multidrug therapy with rifampicin 600 mg once a month and dapsone 100 mg daily. There was no history of any other drug intake. Ten days later she reported sudden blurring of distance vision. She was examined by an ophthalmologist who noted that her unaided vision in both eyes was finger counting at 3 meters, and corrected visual acuity with -4.5 spherical glasses was 6/6 in both eyes. Cycloplegic refraction of both eyes showed a refractive error of -4.5 spherical, suggesting a possible etiological factor as a change in the lens structure (index myopia). Slit-lamp and fundoscopic examination revealed no relevant changes. Dapsone was immediately discontinued and she was kept under observation. The vision reverted back to normal after four days without any intervention. A repeat ophthalmic examination showed no abnormality and vision was 6/6 without glasses.

The etiology of drug-induced acute myopia is

debatable, but is mostly related to lenticular changes. Explanations have included spasm of accommodation, changes in the lens structure (resulting from altered sodium chloride metabolism, with the resultant imbibitions of fluid by the lens or change in the index of refraction) and edema of the ciliary body resulting in increased curvature of the lens surfaces.[3]

Drug-induced myopia is an important cause of transient myopia. Dapsone, being used in many skin conditions, including its frequent and long-term use in leprosy should be considered in its differential diagnosis and specific drug intake inquiry is recommended. The effect is temporary and vision usually returns to normal a few days after stopping treatment.

REFERENCES

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