CASE NOTES

TEMPORARY CATARACTS IN DIABETES MELLITUS*

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TEMPORARY cataracts lasting for a few weeks, as a complication of diabetes, are very rare and it is for this reason that one more case is reported below.

Apart from transient lens opacities lasting only 2 to 3 days during extreme dehydration in diabetes, to the best of my knowledge only eight cases of cataracts of a temporary nature lasting up to 42 days have been recorded to date, three by Nettleship (1885) and one each by Alt (1906), Fischer (1925), and Braun (1935). Lawrence (1946) reviewed the literature and described in detail two more cases which he observed before, during, and after the presence of cataracts. In the following case a previous record of a refraction was available and the patient was observed before the cataracts developed and throughout their duration.

Case Report

The patient was a member of the W.R.A.F., aged 19 years, whose father had died of diabetes a year after she was born, and whose sister had been diagnosed as a diabetic just before her admission to us.

History.—She had been in good health until 5 months before admission when she complained of excessive tiredness and lack of energy; 2 months later she had a large boil necessitating 48 hrs in bed, and on getting up noted a blurring on near vision. A few weeks later an ophthalmologist saw her and reported “hypermetropia”; her visual acuity was $6/6+0.5 D=6/6$ in the right eye, and $6/5+0.5 D=6/6$ in the left eye. She was given spectacles but there was little improvement in her vision. Also at this time, *i.e.* 3 months before admission, she had polydipsia and polyuria with impairment of appetite.

Examination.—On admission, she complained of dimness of vision and thirst. She had lost 20 lb. in weight in 3 months. She was drowsy but her tongue was moist. The fundi were normal and no lens opacities were seen. Her blood sugar was 440 mg. per cent. and ketones were present.

Treatment.—She was given insulin immediately, and by the third day felt much better, but her dimness of vision had been increasing.

Progress.—Within 24 hrs her sight deteriorated rapidly and on the fifth day I found that she had bilateral posterior lens opacities as in the Figure (overleaf).

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FIGURE.—Posterior lens opacities.

Solid circular opacities were situated laterally with three or four linear opacities running medially. These were confirmed by the ophthalmologist, who reported visual acuity in the right eye 4/60 and in the left eye 3/60. No slit-lamp examination was possible.

She was then on 40 units of soluble insulin night and morning.

Her vision gradually deteriorated and she became almost blind, being unable to count fingers held one foot away from her eyes. She remained like this until the nineteenth day (she had had two hypoglycaemic attacks on the 18th day) when her vision began to improve, and the linear opacities became thinner and shorter. The improvement continued, and during the next 11 days the opacities gradually disappeared, the linear ones first and then the peripheral circular ones, having lasted 26 days. On the 30th day her visual acuity was 6/6+1.5 D=6/6 in the right eye, and 6/6+1.75 D=6/6 in the left eye. She was then on P.Z.1 32 units in the morning.

Follow-up.—I have recently found that for 6 years she has had no further visual difficulty, and through the kindness of Dr. Christopher Hardwick of Guy's Hospital, whose clinic she is attending, I was informed that her visual acuity has not changed since her last refraction in hospital recorded above. Thus she has been hypermetropic throughout. Her sister has shown no visual signs.

Discussion

This patient only differs from Lawrence's two cases in that she was hypermetropic. The position of the cataracts in the lens does not appear to be of any significance as they spread to all quadrants; in the other two cases they happened to occur in the central and upper quadrants. In this case the improvement in vision and subsidence of the opacities coincided with two hypoglycaemic attacks 24 hours previously. One wonders whether there may be a connexion between the two events and whether it would be worth placing a patient with this condition in hypoglycaemia to see if this had any effect on the vision.

The aetiology of this type of lens opacity is not certain but the most important factors appear to be dehydration and rehydration, these processes being present in all cases. In this respect it is interesting to note that transient lens opacities do occur occasionally in another condition, namely cholera (Manson-Bahr, 1945). Here dehydration can be most severe, and the opacities clear when rehydration occurs.

If this change in hydration were the only factor then one would expect to find many more cases of transient opacities, whereas they are a very rare occurrence. The complete answer to these manifestations still eludes us.

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AN UNUSUAL FOREIGN BODY*

BY

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A man aged 45 was seen with a foreign body vertically embedded deep in the substance of the centre of the cornea. He said that whilst travelling at an estimated speed of 40 miles per hour on his motor-cycle he was struck in the eye by a "Daddy long-legs", which he had seen in front of him. An unsuccessful attempt was made to remove this foreign body, and 2 weeks later there was a further unsuccessful attempt at removal. When the patient was seen by myself 6 weeks later the intensive keratitis necessitated a third attempt. The fine limb of the insect could be seen almost touching Descemet's membrane. Under local anaesthesia a vertical cut was made into the deep substance of the cornea with a fine Graefe knife. Slit-lamp examination was made during the operation, the difficulty being that owing to parallax the leg of the insect was not quite in the position in which it appeared to be. The piece of a limb of this insect which was brought out on the parallel edge of the Graefe knife was 3 mm. in length. The keratitis settled immediately, and the visual acuity was 6/6.

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