

## GENERAL OPHTHALMOLOGY

### Bilateral Cataract as the First Presentation of Type 1 Diabetes in a 14-Year-Old Nigerian Girl: A Rare Case

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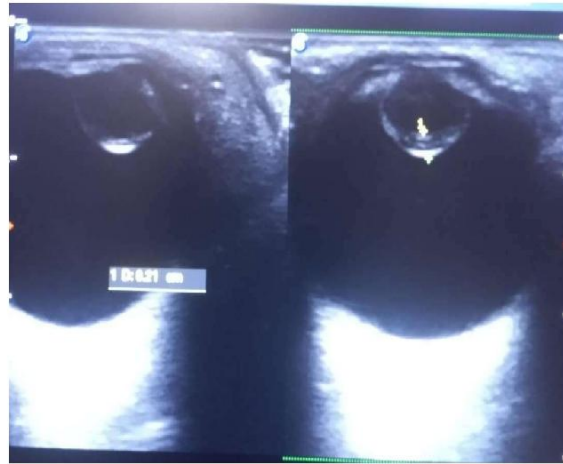
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**Background:** Cataract is a known complication of Diabetes mellitus (DM) in clinical practice.<sup>1,2,3</sup> DM, usually the type 2 (Non-Insulin Dependent Diabetes NIDD) is first diagnosed in some persons when they visit the Ophthalmology clinic.<sup>4</sup> The objective of this report is to draw attention of type 1 diabetes mellitus (T1DM) in a child presenting first to the eye clinic with cataract.

**Case Presentation:** Miss UN, a 14-year-old student, presented with two weeks history of bilateral gradual painless blurring of vision. Past ocular history was not significant. There was history of polyuria, polydipsia and polyphagia, weight loss and fatigue. She was not a known diabetic, no history of hospitalization in the past. Her mother passed away two years earlier from end stage renal disease (ESRD) complicating type 2 DM. No family history of T1DM.

On physical examination, she was conscious and alert, general condition appeared satisfactory. Visual acuity was 6/60 and counting fingers on the right and left eye respectively. The anterior segment examination revealed bilateral cataract. Slit lamp examination showed posterior capsular opacity and snowflakes opacities respectively in the right and left eyes (Figure 1). Poor red reflex with hazy media was noted on the right eye while there was no red reflex on the left eye. Intraocular pressure was 16mmHg bilaterally. Her random blood glucose level was 580mg/dl on presentation. She was referred to the endocrinologist and was

managed for diabetic ketoacidosis and severe acute malaria.



**Figure 1:** B- Mode ocular ultrasound showing thickening of both lenses.

She had bilateral phacoemulsification with white double aspheric monofocal foldable intraocular lens implants inserted. Intraoperative posterior capsular opacification was noted.

Visual acuity in both eyes after surgery was 6/18 in both eyes. She had YAG laser posterior capsulotomy four weeks after the surgery. Her vision improved to 6/9 in the right eye to 6/6 in left eye. Posterior segment examination showed no diabetic retinopathy.

**Discussion:** The patient in this report, presented with blurring of vision first to the ophthalmologist with the classical symptoms of DM. This underscores the need for universal screening for DM considering that it is estimated that 1 in 2 of adults who have DM in the world currently are not diagnosed.<sup>5</sup>

She had a poor glycaemic control at presentation (HbA1C 16.3%) which again underscores the leading role of increasing HbA1C as one of the risk factors for development of early diabetic cataract.<sup>6</sup> The patient most likely had diabetic symptoms before the visual incapacitating effect of cataract was observed but this was probably overlooked by the guardians. More importance was attached to the visual disability rather than the life threatening diabetes.

It is worth noting that the prompt surgery offered to the index patient went a long way to improving her quality of life.

**Conclusion:** Bilateral cataract is an uncommon condition in children and adolescents with type 1 diabetes. It can rapidly develop especially in the setting of diabetic ketoacidosis and or prolonged poor glycaemic control. There is need to maintain the screening of all cataract patients for diabetes to detect undiagnosed diabetes.

#### References

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