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Bilateral Cataracts In A 15-year-old Girl With New-onset Type 1 Diabetes Mellitus

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Background: Cataracts secondary to Type 1 or Type 2 Diabetes is not uncommon in adults, however, it is a rare finding in pediatric patients with Type 1 Diabetes. **Clinical Case:** A 15-year-old girl presented with progressively worsened bilateral vision for 6 months, however, vision rapidly deteriorated over the previous month, prompting visit to optometrist. No history of weight loss, however, did report 1.5 years of polydipsia, polyuria, and polyphagia. Outside optometrist reported concerns for cataracts. She presented to our Ophthalmology department one week later, who found bilateral cataracts with haziness in all layers and swollen lenses. Labs were done due to findings, glucose was 668 mg/dL with HbA1C >20%. She presented next day to ER, reported no symptoms other than blurry vision but was found to be in mild DKA with a venous pH of 7.285, Ketones 5.41 mmol/L, Glucose 480 mg/dL, and C-peptide 0.32 pmol/mL. Patient was started on insulin infusion at 0.1u/kg/hour and transitioned quickly to subcutaneous insulin. Pancreatic antibodies were significant for positive GAD65 and ZnT8 antibodies. She had cataract surgery for her left eye 1 week after presentation, found to have intumescent white cataract with "hand motion" vision. Vision in left eye is now 20/20 with plans to operate on the right eye in the near future. **Literature Review:** The prevalence of early diabetic cataracts in the pediatric population can range from 0.7%- 3.4% (1); and more common in female patients (2). Pathophysiology includes defect in the polyol pathway, combined with oxidative stress, leading to increased fluid retention (3). Treatment involves cataract surgery and improved glycemic control. Current ISPAD guidelines recommend initial evaluation for cataracts, and subsequent surveillance concomitant with diabetic retinopathy monitoring biennially with those with good glycemic control (4). **Conclusion:** Diabetic cataracts are extremely rare in the pediatric population. However, diabetes should be considered as an etiology for juvenile cataracts. Given the rapid formation and severity of onset of bilateral cataracts for this patient, early and frequent ophthalmologic surveillance should be recommended for Type 1 diabetes pediatric population. **Reference:** 1. Šimunović, M, et al (2018). Cataract as early ocular complication in children and adolescents with type 1 diabetes mellitus. *International Journal of Endocrinology*, 2018, 1–6. 2. Lu, W. -L, et al (2020). High risk of early cataracts