

Childhood cataract: Effects on health and life



Moug Al-Bakri, MD, PhD,
Department of Ophthalmology, Center of Head and Orthopedics,
Rigshospitalet – Glostrup, Region Hovedstaden

On September 17, 2021, Moug Al-Bakri defended her thesis, "Childhood cataract – effects on health and life. A cohort study," at the Department of Ophthalmology, Rigshospitalet, Copenhagen, Denmark. Her main supervisor was Associate Professor Line Kessel, MD, PhD, FEBO, with co-supervisors Associate Professor Daniella Bach-Holm, MD, PhD, FEBO and Dorte Ancher Larsen, MD.

This thesis on childhood cataract focused on the influence of the disease on the affected children and families. We aimed to (1) evaluate how often those children are examined and how often they undergo general anesthesia, (2) examine the families' socio-economic status and (3) assess the children's mental health.



The follow-up for children with cataract is lifelong and can be stressful. It often includes several hospital visits aimed at visual and optical rehabilitation and screening for postoperative complications, in addition to amblyopia therapy with daily patching of the better-seeing eye at home. The parents are an important and indispensable part of the disease management.

Key points:

- Among children with childhood cataract, there was a doubling of the incidence of psychiatric comorbidity and a four-fold increased risk for anxiety, even after correcting for relevant confounders.
- Children with cataract are more likely to come from socio-economically vulnerable families.

Paper I: Using medical records of 227 children, we were able to determine the number of visits and surgeries/examinations under general anesthesia. We found that the operated children, on average, had ten hospital visits in the first year of life. Half of the bilaterally operated children and a quarter of the unilaterally operated children underwent general anesthesia five times during the first seven years of life.

Paper II: Using national registries, we were able to compare the socio-economic statuses of the families with children affected by cataract with those of an age-matched control group. We found that the cataract group were more likely to belong

to low-income families, with more parents outside the workforce and with a lower educational level.

Paper III: Psychiatric comorbidity among children with cataract and an age-matched control group was examined using the National Patient Registry. We found a doubling in the incidence of psychiatric comorbidity and a four-fold increased risk for anxiety, even after adjusting for the child's geographical birth origin, systemic comorbidities, parental mental health, socio-economic status, and other relevant confounders. The risk for psychiatric comorbidity was higher in the group of children diagnosed with cataract during the first three years of life.

Acknowledgments: Photographs by Henrik Frydkjær

Articles in the dissertation

1. Al-Bakri M, et al. Children with congenital and childhood cataract require frequent follow-up visits and examinations in general anaesthesia: considerations for the strain on families. *Acta Ophthalmol.* 2019 Dec;97(8):778-783.
2. Al-Bakri M, et al. Socio-economic status in families affected by childhood cataract. *Acta Ophthalmol.* 2021 Mar 5. doi: 10.1111/aos.14768. Epub ahead of print.
3. Al-Bakri M, et al. Increased incidence of mental disorders in children with cataract – findings from a population-based study. *Am. J. Ophthalmol.* In press.