

Need for Eye Care Services, Clinical Characteristics, Surgical Outcome and Prognostic Predictors of Cataract in Adult Participants with Intellectual Disability

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Abstract : Background and significance: Uncorrected refractive errors and cataracts are the main visually debilitating ophthalmological abnormalities in adult participants with intellectual disability (ID). However, not all adult participants with ID may receive a regular and timely ophthalmological assessment. Consequently, some of the ocular diseases may not be diagnosed until late, thereby causing unnecessary ocular morbidity. In addition, recent clinical practice and researches have also suggested that eye-care services for this group are neglected. Purpose: To investigate the unmet need for eye care services, clinical characteristics of cataract, visual function, surgical outcome and prognostic predictors in adult participants with ID at Taipei City Hospital in Taiwan. Methods: This is a one-year prospective clinical study. We recruited about 120 eyes of 60 adult participants with ID who were received cataract surgery. Caregivers of all participants received a questionnaire on current eye care services. Clinical demographic data, such as age, gender, and associated systemic diseases or syndromes, were collected. All complete ophthalmologic examinations were performed 1 month preoperatively and 3 months postoperatively, including ocular biometry, visual function, refractive status, morphology of cataract, associated ocular features, anesthesia methods, surgical types, and complications. Morphology of cataract, visual and surgical outcome was analyzed. Results: A total of 60 participants with mean age 43.66 ± 13.94 years, including 59.02% male and 40.98% female, took part in comprehensive eye-care services. The prevalence of unmet need for eye care services was high (about 70%). About 50% of adult participants with ID have bilateral cataracts at the time of diagnosis. White cataracts were noted in about 30% of all adult participants with ID at the time of presentation. Associated ocular disorders were included myopic maculopathy (4.54%), corneal disorders (11.36%), nystagmus (20.45%), strabismus (38.64%) and glaucoma (2.27%). About 26.7% of adult participants with ID underwent extracapsular cataract extraction whereas a phacoemulsification was performed in 100% of eyes. Intraocular lens implantation was performed in all eyes. The most common postoperative complication was posterior capsular opacification (30%). The mean best-corrected visual acuity was significantly improved from preoperatively (mean log MAR 0.48 ± 0.22) to at 3 months postoperatively (mean log MAR 0.045 ± 0.22) ($p < .05$). Conclusions: Regular follow up will help address the need for eye-care services in participants with ID. A high incidence of bilateral cataracts, as well as white cataracts, was observed in adult participants with ID. Because of early diagnosis and early intervention of cataract, the visual and surgical outcomes of cataract are good, but the visual outcomes are suboptimal due to associated ocular comorbidities.

Keywords : adult participants with intellectual disability, cataract, cataract surgery

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