

Pola penyebab kebutaan anak pada panti sosial Bina Netra di pulau Jawa = Causes of childhood blindness in schools for the blind in Java island, Indonesia

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Abstrak

Aim: To obtain the prevalence and pattern causes of childhood blindness in schools for the blind in Java island (Indonesia) with a view to determining potentially preventable and treatable causes. To evaluate risk factors that influence the pattern of causes of blindness.

Methods: Four hundred and seventy nine students in five school for blind in Java island, Indonesia, were examined clinically during December 2005 until January 2006 using the standard WHO/PBL eye examination record for blindness and low vision form. Data were analyzed for those children with blindness visual acuity less than 3/60, aged less than 16 years or the onset of the visual loss younger than 16 years. Relation between avoidable causes of blindness and social demography or medical characteristics factors were analyzed.

Results: Most of the students (95%) were blind (BL); 4.6% were severe visual impairment (SVI) and 0.4% visual impairment (VI). The major anatomical site of blindness were whole globe (pthisis bulbi) in 37.1%, retina (retinal dystrophies) in 15.4%, lens (cataract) in 15.4% and cornea (corneal scar) in 11.6%. The underlying causes of blindness were undetermined/ unknown in 32.5%, genetic diseases in 30.8% (mainly retinal dystrophies) and postnatal infection in 29.5% (mainly measles or vitamin A deficiency). The risk factors that influence the pattern of cause childhood blindness were consanguinity, presence of family history and onset of blindness since birth.

Conclusions: The major causes of blindness were a mixed pattern of hereditary/ genetic diseases and postnatal infection. Measles and vitamin A deficiency were the major causes of preventable blindness, while cataract and glaucoma/ buphthalmos were the major causes of treatable blindness. There is a need to strengthen current primary preventions strategies with improved the efficacy of immunization and vitamin A supplementation coverage. Tertiary referral centres for paediatric ophthalmology should be set up to manage treatable causes, such as cataract and glaucoma.