Título / Title

EVALUATION OF A PORTABLE RETINOGRAPH IN SCREENING FOR RETINOPATHY OF PREMATURITY

Introdução / Purpose

Approximately two thirds of premature babies weighing less than 1250g will develop Retinopathy of Prematurity (ROP), and around 10% of these will require therapeutic intervention. Challenges in screening, diagnosis and Effective treatments for ROP include high diagnostic variability between observers, the shortage of qualified ophthalmologists, and the increase in the incidence of the disease, parallel to advances in neonatal care. This study evaluates the efficacy of the Phelcom noncontact portable retinal camera in the assessment of ROP.

Material e Método / Methods

The Phelcom portable retinal camera was used for neonatal screening exams for ROP in a community hospital. The exams were performed under pharmacological mydriasis, with or without neonatal blepharostat support and oral glucose administration. Images from zone 1 were obligatorily included. Subsequently, experienced ophthalmologists analyzed the images for clarity, precision and diagnostic feasibility.

Resultados / Results

We evaluated 26 eyes of 13 newborns susceptible to ROP. Five patients were excluded due to hemodynamic instability or difficulties in positioning of equipment associated with the use of CPAP. Of the 16 images captured, 12 (75%) were considered of sufficient quality for diagnosis. One child was identified with pre-plus disease in both eyes and none had indication for treatment.

Discussão e Conclusões / Conclusion

The results indicate that the Phelcom portable retinal camera is capable of capturing images high-quality images of the posterior pole, suitable for the assessment of plus or pre-plus, highlighting its potential as a screening tool for ROP. However, the effectiveness of the device in obtaining diagnostic images is significantly influenced by the clinical stability of newborns and the experience of the operator. The study points to the importance of adequate training and adaptation to clinical limitations to optimize the use of portable retinography in screening of ROP.

Palavras Chave

Neonatology; Pediatric ophthalmology; Prematurity; Retina; Retinopathy of prematurity; noncontact portable fundus camera; phelcom

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