conferenceseries.com

Asma A A Zahidi et al., J Clin Exp Ophthalmol 2016, 7:8 (Suppl)
http://dx.doi.org/10.4172/2155-9570.C1.046

International Conference and Expo on

Optometry and Vision Science

October 20-22, 2016 Rome, Italy

The effect of stimulus type and size on the quality of eye movement data in patients with infantile nystagmus

Asma A A Zahidi, J Margaret Woodhouse and **Jonathan T Erichsen**
Cardiff University, UK

One of the challenges of performing eye movement recording (EMR) in young children is maintaining their attention while performing the visual tasks. Thus, the type of stimulus used during the EMR can play an important role in obtaining good quality eye position data. Traditional stimuli used in eye movement recording in adults are geometric shapes, such as a cross or a black dot, which are usually small in size. The purpose of using stimuli with such characteristics is to reduce the variability of eye position in the EMR data. However, these types of stimulus have few details and do not grab the attention of very young children. For these reasons, it has been suggested that a larger and more complex image might be better at attracting the child's attention. Increasing the size and amount of details of a stimulus, however, may adversely affect the quality of data obtained in an EMR of patients with Infantile Nystagmus (IN). Therefore, the present experiment aims to compare the quality of EMR data of patients with IN using two different types of stimulus: animated and non-animated. Five adults with IN performed the eye movement recording. The stimulus used was 10 cartoon images of animated and non-animated animals, respectively. Each stimulus was presented in two different sizes (2^o and 4^o) at the center of a computer screen for 3 seconds. The quality of the data in terms of the amount of noise for each stimulus was then assessed. The findings obtained from this experiment enabled us to choose the stimulus type and size that is most suitable during eye in movement recording children with IN of different age groups.

Biography

Asma A A Zahidi is currently in the second year of her PhD at the School of Optometry and Vision Sciences, Cardiff University, under the supervision of Dr. J Margaret Woodhouse and Professor Jonathan T Erichsen. Her research interests are Infantile Nystagmus, Pediatric Optometry and Visual Impairment.

BintiAhmadZahidiAA@cardiff.ac.uk

Notes: