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PORNTIP THEPMONTAR : ELECTRONYSTAGMOGRAPHY : A
NORMATIVE STUDY IN NORMAL PERSONS AGED 20 – 40 YEARS. THESIS
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Electronystagmography (ENG) is an examination of eye movement, which emphasizes vestibulo-ocular reflex (VOR). Currently, ENG is used to evaluate the vestibular function of patients with vertigo, dizziness or unsteadiness; however, there has been discrepancy in ENG data in different clinics in Thailand. The purpose of this study was to study normative data of electronystagmography in 32 normal Thai subjects aged 20-40 years (means 29.56 years, SD = 6.02) compared to those from a computer program. The normal subjects were investigated by using electronystagmography to study spontaneous nystagmus, gaze-induced nystagmus, voluntary saccade, smooth pursuit, optokinetic nystagmus, positional-induced nystagmus and caloric nystagmus.

The results indicated that no spontaneous, gaze-induced and positional-induced nystagmus were found in the normal subjects. In the voluntary saccade, smooth pursuit and optokinetic nystagmus test, the tracings were similar to the normal tracings of other studies. Also, the slightly irregular tracing increased with increasing target velocity in the voluntary saccade and smooth pursuit test.

The results were: the means peak velocity of saccade, the delay time, and the accuracy values in the voluntary saccade test; the means of the pursuit gain and DC Offset in the smooth pursuit test; the means of the OKN gain in the optokinetic nystagmus (OKN) test; the means of the maximum slow component velocity of nystagmus (V_{max}), the means of the canal paresis (CP), directional preponderance (DP), fixation index (FI) values in the caloric test, agreed with other researches and were not significantly different between Thai subjects and the computer program. Therefore, the comparison of the number range (mean \pm 2SD) were not significantly different between Thai normal subjects and the computer program in all values of variables of each subtests.

These findings suggest that the values of ENG variables of a Thai patient in age range 20-40 years should be compared with the number range and normal limit of Thai normal subjects from this study for the purpose of clinical interpretation. Further study should be focused on the results in the patients with various lesions of vestibular system.