

عنوان مقاله:

Evaluating the Changes in Distance Stereopsis Caused by Induced Heterophoria in Normal Persons by Three Needle Test

محل انتشار:

مجله علمی پژوهشی دانشگاه علوم پزشکی زنجان، دوره 21، شماره 84 (سال: 1391)

تعداد صفحات اصل مقاله: 10

نویسندگان:

اکرم احيائي - Dept. of Optometry, School of Para Medicine, Mashhad University of Medical Sciences, Mashhad, Iran

جواد هرویان - Dept. of Optometry, School of Para Medicine, Mashhad University of Medical Sciences, Mashhad, Iran

حبیب ا... اسماعیلی - Dept. of Social Medicine, School of Health, Mashhad University of Medical Sciences, Mashhad, Iran

خلاصه مقاله:

Backgrounds and Objective: Stereoacuity is due to a relative difference between images because of retinal disparity. Measurement of stereoacuity is important for diagnosis and treatment of binocular anomalies and neurological problems. The aim of this study was to determine the effect of induced heterophoria by base-out and base-in prisms on distance stereopsis by the Three Needle Test. **Materials and Methods:** This descriptive-analytical study was performed on 50 normal persons in the Optometry Clinic at Mashhad University of Medical Sciences during 2012. After primary examination, distance heterophoria was determined by cover test and prism bar. All subjects were orthophoric and had a maximum corrected vision of 6/6. Esophoria and exophoria were induced using prisms dioptres of 2, 4, 6, and 8 base-in and base-out. The stereopsis was then determined by the Three Needle test in distance observation of 6 meters in orthophoric, esophoric, and exophoric states. Data were analyzed using SPSS software. **Results:** Comparison between mean stereopsis in orthophoric and induced esophoric states was only statistically significant in 4 prism dioptres ($P=0.006$). However, comparison of mean stereopsis in orthophoric with induced exophoric states indicated statistically significant differences for all values of 2, 4, 6, and 8 prism dioptres ($P=0.009$, $P<0.0001$, $P<0.0001$ and $P<0.0001$ respectively). Comparison between the mean stereopsis for the induced esophoric and exophoric states indicated statistically significant differences for 2, 4, and 6 prism dioptres. **Conclusion:** There is a reduction of stereopsis with induced heterophoria. Stereopsis seems to decrease more with induced esophoria than exophoria.

کلمات کلیدی:

Keywords: Heterophoria, Distance stereopsis, Three needle test

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1191422>



