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DOES THE TIMING OF THE VITREORETINAL SURGERY IMPACT YOUR SURGICAL PERFORMANCE? - A SIMULATOR-BASED STUDY.

Oral

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Purpose:

To compare the surgical performance of vitreoretina trainees while performing various surgical manoeuvres on the Eyesi surgical simulator (VRMagic Holding AG) during different times.

Methods:

This was a prospective cross-over observational study where vitreoretina trainees (less than two years of surgical experience) were asked to perform various surgical tasks using the Eyesi surgical simulator (VRMagic Holding AG). The trainees were randomised into two groups. Group A performed surgeries during the morning (7-9 AM), and group B performed surgeries during the evening (4-7 PM). After completing assigned tasks, the trainees were cross-overed to the alternative group. Primary outcome measures included objective scores and time to perform each surgical maneuver in both groups. Secondary outcome measures included subjective scores given by each trainee and complications encountered.

Results:

Eight vitreoretinal trainees (3 males, 5 females) were included in the study. The mean age of male and female trainees was 34 ± 4.58 years and 30.8 ± 4.08 years, respectively. The mean objective score obtained to perform various tasks like navigation anti-tremor, pars plana vitrectomy and posterior vitreous detachment, bimanual training, bimanual scissors, and epiretinal membrane peeling was comparable in both the groups. The time taken to perform the above tasks was also similar. Iatrogenic retinal tears and retinal injuries were encountered more in the evening than morning. Subjectively the residents did not find any difference in either group.

Conclusions:

The timing of performing vitreoretinal surgery does not alter the surgical performance. This can be attributed to high motivation to learn and a good attention span of trainees at a young age.