

Is hand dominance associated with eye dominance?

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ABSTRACT

Objective: To study the association between hand dominance and eye dominance. **Method:** This is a cross-sectional observational study which involves 150 candidates (82 female, 68 male) with mean age of 43 years old and vision 6/24 or better. During screening programs, the Miles test was performed. Candidate extends both arms, brings both hands together to create a small opening and with both eyes open views a distant object through the opening. The candidate then alternates closing the eyes to determine which eye is viewing the object (i.e. the dominant eye). Dominant hand was verbally asked and recorded. **Results:** Total of 136 candidates with right-hand dominance (90.67 %) which is higher than those with left-hand dominance (9.33 %). 112 candidates with right eye dominance (74.67 %), 31 with left eye dominance (20.67 %) and 7 equivocal (4.67%). Total of 109 candidates with both right eye and hand dominance (72.67 %). Total of 9 candidates with both left eye and hand dominance (6 %). Candidates with same side hand-eye dominance are more common (78.67%) than candidates with crossed laterality i.e. opposite hand-eye dominance (16.67 %). We investigate the association using Fisher's exact test. A significant association between dominant hand and dominant eye was observed, p-value < 0.001. **Conclusion:** Binocular rivalry was first described by Porta in 1593, despite being recognised 425 years ago, surprisingly little is known about eye dominance, at least in comparison with hand dominance. We believe laterality is an important topic in future research and worthwhile to be explored in.

KEY WORDS:

Ocular dominance, hand dominance, crossed laterality

Outcome of idiopathic full thickness macula hole surgery: Our experience at Hospital Selayang

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ABSTRACT

Objective: To evaluate the anatomical and visual outcomes of pars plana vitrectomy (PPV) for idiopathic full thickness macula hole (FTMH). **Method:** This was a retrospective case series done in Hospital Selayang of patients who underwent PPV for FTMH from 1 January 2016 to 31 December 2017. All patients underwent PPV with internal limiting membrane (ILM) peeling and perfluoropropane (C3F8) tamponade. Major outcome parameters were: pre and post-operative best corrected visual acuity (BCVA), macula hole index (MHI) and anatomical closure at 3 months. **Results:** Total of 48 patients were included in the study, of which 13 (27%) were male. 38 (79 %) patients achieved anatomical closure at post-operative three months. Younger patients age group (mean= 65.2 ± 8.4 SD years) reported higher closure rate compared to older patient age group (mean=69.5 ± 4.2 SD years) [P=0.03]. Larger MHI (mean=0.54± 0.2 SD) also had better closure rate than smaller MHI (mean=0.33± 0.08SD) [P=0.015]. Majority 26 (54 %) patients experienced improvement in BCVA (average Snellen visual acuity of 6/21 at three months versus average Snellen visual acuity of 6/36 pre-operatively). 17 (35 %) patients maintained their pre-operative BCVA, while five (10.4%) patients had worse post-operative BCVA due to cataract. There were no significant differences between gender, and duration of symptoms to closure rate. **Conclusion:** Our study is similar to worldwide studies with a closure rate of approximately 80 %. Larger MHI and younger patients have better closure rate. More than 80 % of patients retained at least similar vision post-operatively, with more than 50 % achieved significant vision improvement.