

Long-term Outcomes of Total Vertical Rectus Transposition with Foster Suture in Chronic Sixth Cranial Nerve Palsy

Supharat Jariyakosol, MD, Parnchat Pukrushpan, MD,
Pokpong Praneerachachon, MD
*Department of Ophthalmology,
Faculty of Medicine,
King Chulalongkorn Memorial Hospital*

Pokpong Praneerachachon, MD
Sirinuch Sawanwattanakul*, MD
Rutnin Eye's Hospital

Objective: To evaluate long-term outcomes of total vertical rectus transposition with Foster suture for chronic sixth cranial nerve palsy and to identify the predictive factors for successful surgical outcome .

Design: Retro-prospective case series

Methods: All of the patients in the muscle clinic of Department of Ophthalmology, King Chulalongkorn Memorial Hospital and Rutnin Eye's Hospital who underwent total vertical rectus transposition with Foster suture between 2005- 2011 were included. All patients had acquired sixth cranial nerve palsy more than 6 months prior to the operation and the post-operative period longer than 2 years. The successful surgical outcome was defined as no diplopia and horizontal deviation ≤ 10 prism diopter (PD) in primary position at distance. The medical records were reviewed and the predictive factors for long-term successful outcome were analyzed.

Results: Sixteen patients who underwent total vertical rectus transposition with Foster suture were included. The successful outcome obtained in 62.5% (10 patients). Post-operative deviation and limitation of abduction were improved in all patients. Mean of deviation reduction was 54.63 PD and of abduction improvement was 54.38 PD. After multivariate regression analysis, the significant predictive factor for successful outcome was not found.

Conclusion: Total vertical rectus muscle transposition with Foster suture is an effective treatment for chronic sixth cranial nerve palsy. The surgery can improve abducting motility and provide good alignment over 2-years follow up period.