

## Somatosensory-Evoked Blink Reflex in Peripheral Facial Palsy

**Authors :** Sarah Sayed El- Tawab, Emmanuel Kamal Azix Saba

**Abstract :** Objectives: Somatosensory blink reflex (SBR) is an eye blink response obtained from electrical stimulation of peripheral nerves or skin area of the body. It has been studied in various neurological diseases as well as among healthy subjects in different population. We designed this study to detect SBR positivity in patients with facial palsy and patients with post facial syndrome, to relate the facial palsy severity and the presence of SBR, and to associate between trigeminal BR changes and SBR positivity in peripheral facial palsy patients. Methods: 50 patients with peripheral facial palsy and post-facial syndrome 31 age and gender matched healthy volunteers were enrolled to this study. Facial motor conduction studies, trigeminal BR, and SBR were studied in all. Results: SBR was elicited in 67.7% of normal subjects, in 68% of PFS group, and in 32% of PFP group. On the non-paralytic side SBR was found in 28% by paralyzed side stimulation and in 24% by healthy side stimulation among PFP patients. For PFS group SBR was found on the non- paralytic side in 48%. Bilateral SBR elicibility was higher than its unilateral elicibility. Conclusion: Increased brainstem interneurons excitability is not essential to generate SBR. The hypothetical sensory-motor gating mechanism is responsible for SBR generation.

**Keywords :** somatosensory evoked blink reflex, post facial syndrome, blink reflex, enhanced gain

**Conference Title :** ICSRD 2020 : International Conference on Scientific Research and Development

**Conference Location :** Chicago, United States

**Conference Dates :** December 12-13, 2020