OUTCOMES OF SUPERIORLY BASED STERNOCLEIDOMASTOID MUSCLE (SCM) FLAP RECONSTRUCTION DURING PAROTIDECTOMY

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Objective
• To assess the efficacy of superiorly based SCM flap reconstruction during parotidectomy in prevention of Frey’s syndrome and facial contour deformity after parotidectomy.

Study design and period
• Hospital based prospective study from June 2017 to June 2019 in ORL HNS Surgery Specialist Hospital, Yangon, Myanmar.

Materials and methods
• 29 patients with benign parotid tumours were included.
• Superficial or total parotidectomies were performed in these patients according to tumour involvement site.
• The SCM flap was reconstructed into operated parotid bed during single stage surgery.
• At 3 months periods after surgery, all patients were evaluated.
• Minor’s Starch Iodine Test was performed to detect Frey’s syndrome.
• Designed Visual Analog Score was used to determine facial contour deformity.

Results
• Out of 29 patients, Minor starch iodine test was positive in only 5 patients who underwent superficial parotidectomy with SCM flap reconstruction.
• In these 5 (17%) patients, 2 (7%) patients were moderately positive and 3 (10%) patients were mildly positive in Minor test.
• 2 patients with moderately positive Minor starch iodine test complained of gustatory sweating and flushing whenever they eat.
• But 3 patients with mildly positive Minor starch iodine test did not feel symptomatic gustatory sweating.
• Designed visual analog scores for facial symmetry completed by patients themselves ranged from 0 to 3 (normal to mild asymmetry) and the scores from the blinded examiners ranged from 0 to 2 (normal to minimal asymmetry).

Conclusion
• Superiorly based SCM flap reconstruction during parotidectomy is an effective procedure for reducing the prevalence of Frey’s syndrome objectively and subjectively.
• And it also provides better aesthetic outcome by improving the facial contour deformity after parotidectomy.
• There was no case of spinal accessory nerve injury, disruption of SCM muscle function or facial nerve injury in the study.

Photos of some patients with parotid tumors in the study

Left superficial parotidectomy
Operated parotid bed
Cutting SCM muscle
Taking SCM flap
Reconstructing flap
Completed surgery

Minor Starch Iodine Test
- Moderately positive Minor test
- Mildly positive Minor test
- Negative Minor test