

| Parameter | Time Point | A. Bilateral Chewing | B. Chewing on Hypertonic side | C. Chewing on Hypotonic side | D. Rest | A vs B | A vs C | B vs C | A vs D | B vs D | C vs D |
|----------------------------------|------------|----------------------|-------------------------------|------------------------------|------------|----------|----------|----------|----------|----------|----------|
| Performance Index (PI, Nos./s) | T1 | 0.62±0.25* | 0.07±0.08* | 0.21±0.12* | 0.04±0.14 | p<0.0005 | p<0.0005 | p<0.0005 | p<0.0005 | NS | p<0.0005 |
| | T1 vs T2 | p=0.001 | p=0.004 | p<0.0005 | NS | | | | | | |
| | T2 | 0.47±0.18* | 0.02±0.05* | 0.04±0.08* | 0.04±0.012 | p<0.0005 | p<0.0005 | NS | p<0.0005 | NS | NS |
| Pupil Size, Hypertonic side (mm) | T1 | -0.12±0.24* | 0.18±0.08* | 0.05±0.03* | 0.04±0.16 | p<0.0005 | p<0.0005 | p<0.0005 | p=0.010 | p<0.0005 | NS |
| | T1 vs T2 | NS | p<0.0005 | NS | NS | | | | | | |
| | T2 | -0.10±0.24 | 0.08±0.07* | 0.05±0.08* | 0.02±0.12 | p<0.0005 | p=0.002 | NS | p=0.015 | NS | NS |
| Pupil Size, Hypotonic side (mm) | T1 | 0.14±0.22* | 0.06±0.05* | 0.28±0.09* | -0.03±0.16 | NS | p=0.001 | p<0.0005 | p=0.007 | p=0.009 | p<0.0005 |
| | T1 vs T2 | NS | p=0.006 | p<0.0005 | NS | | | | | | |
| | T2 | 0.10±0.24 | 0.02±0.05* | 0.05±0.12 | 0.03±0.16 | NS | NS | NS | NS | NS | NS |
| Anisocoria (mm) | T1 | -0.26±0.28* | 0.12±0.10* | -0.23±0.10* | 0.07±0.15* | p<0.0005 | NS | p<0.0005 | p<0.0005 | NS | p<0.0005 |
| | T1 vs T2 | NS | p=0.010 | p<0.005 | NS | | | | | | |
| | T2 | -0.20±0.29* | 0.05±0.09* | 0.00±0.14 | 0.00±0.17 | p<0.0001 | p=0.002 | NS | p=0.004 | NS | NS |

Table S1 Mean±SD values of the changes in Performance Index (PI), pupil size and anisocoria observed at T1 and T2 with respect to T0 in four different conditions. (A: Bilateral Chewing; B: Chewing on Hypertonic side; C: Chewing on Hypotonic side; D: Rest). Comparison between conditions and time points have been reported in columns and lines, respectively. The significance level corresponded to 0.05 for PI. Since pupil size and anisocoria were considered as non-independent variables, comparison between time points and F values were submitted to Bonferroni's correction and the significance level corresponded to 0.017. The asterisks indicate statistically significant difference between the corresponding time point and T0. NS: Not Significant.