

Supplementary File S1

1.1. Tongue morphology assessment with NBI

1.1.1. The total score of blood vessel morphology

1.1.1.1. Within-group analysis

32 of 52 patients (75%) were included in the within-group analysis of NBI_{total} for the test and control side separately with Friedman's test. Pairwise comparisons were performed with a Bonferroni correction for multiple comparisons.

Within the test side, the NBI_{total} has decreased statistically significantly during follow-up, $\chi^2(2) = 10.800, p = .005$. Post hoc analysis revealed statistically significant differences ($p = .007$) in NBI_{total} preoperatively ($Mdn = 12$) to 2nd check-up ($Mdn = 9$) but not preoperatively to 1st check-up ($Mdn = 12$) and 1st to 2nd check-up.

Within the control side, the NBI_{total} did not change statistically significantly from preoperatively ($Mdn = 12$), to 1st check-up ($Mdn = 12$) and to 2nd check-up ($Mdn = 10$), $\chi^2(2) = 0.444, p = .801$.

1.1.1.2. Between-group analysis

39 of 52 patients (75 %) were included in the between-group NBI_{total} analysis which corresponds to 39 test and 39 control sides.

An independent-samples t-test was run to determine if there were differences between test and control side at preoperative check-up. There was one outlier in the test side, as assessed by inspection of a boxplot. NBI_{total} was normally distributed in both groups preoperatively, as assessed by Shapiro-Wilk's test ($p > .05$), and there was homogeneity of variances, as assessed by Levene's test for equality of variances ($p = .657$). There was no statistically significant difference in the NBI_{total} between the test (12.28 ± 4.577) and control side (11.85 ± 4.171), $t(37) = -.440, p = .661$.

An independent-samples t-test was run to determine if there were differences between test and control side at the 1st check-up. There were no outliers in both groups as assessed by inspection of a boxplot. NBI_{total} was normally distributed in both groups at the 1st check-up, as assessed by Shapiro-Wilk's test ($p > .05$), and there was homogeneity of variances, as assessed by Levene's test for equality of variances ($p = .596$). There was no statistically significant difference in the NBI_{total} between the test (10.97 ± 4.215) and control side (11.79 ± 4.824), $t(76) = .800, p = .426$.

Due to non-normal distributions in both groups a Mann-Whitney U test was run to determine if there were differences in NBI_{total} between test and control side at 2nd check-up. Distributions of the NBI_{total} were similar for both groups, as assessed by visual inspection. Median NBI No values were not statistically significantly different between test ($Mdn = 9$) and control side ($Mdn = 10$), $U = 617.000, z = -1.449, p = .147$.