

Effect of EPA and HMB on Strength in ICU Patients

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Statistical Analysis

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Non-parametric ANOVA testing was used to compare variables (e.g. changes in diaphragm twitch) across the four experimental groups, with post-hoc testing (Tukeys) to determine significance of differences. A p value of less than 0.05 was taken as indicating statistical significance for comparisons.

Trial arm sizes.

| Control | EPA | HMB | HMB+EPA | Total |
|---------|-----|-----|---------|-------|
| 20 | 17 | 18 | 18 | 73 |

Some specific measurements were not possible due to patient refusal, patient transfer, or care withdrawal by the attending physician. Therefore, besides providing sample medians (interquartile ranges), sample sizes (n) are also given in the following table of descriptive statistics and p-values testing for differences between the 4 trial arms:

| Location | Variable | Control | EPA | HMB | HMB+EPA | p-value |
|------------|-----------------------|---------------------------|----------------------------|----------------------------|---------------------------|---------|
| Diaphragm | Force after treatment | 5.7 (3.7, 8.0) n=13 | 5.4 (3.5, 6.7) n=10 | 4.0 (3.5, 6.0) n=9 | 6.0 (3.9, 8.3) n=12 | 0.63 |
| | Change in force | 1.3 (0.0, 1.7) n=13 | 0.1 (-1.4, 3.2) n=10 | 1.5 (0.0, 3.2) n=9 | 0.7 (-1.8, 3.7) n=12 | 0.93 |
| | % change in force | 19 (0, 40) n=13 | 2 (-35, 128) n=10 | 58 (0, 75) n=9 | 19 (-24, 100) n=12 | 0.87 |
| | % change in size | 5.0 (0.0, 8.0) n=15 | 5.0 (0.0, 11.0) n=11 | 6.0 (0.0, 11.0) n=12 | 3.0 (-5.5, 16.0) n=12 | 0.97 |
| Quadriceps | Force after treatment | 4.6 (1.8, 11.6) n=17 | 3.4 (1.7, 11.0) n=13 | 4.0 (1.0, 9.5) n=11 | 4.6 (1.5, 6.5) n=13 | 0.80 |
| | Change in force | 1.0 (0.1, 3.7) n=17 | 0.3 (-0.4, 2.4) n=13 | 0.5 (-5.0, 3.2) n=11 | 0.1 (-1.1, 2.2) n=13 | 0.57 |
| | % change in force | 61 (0, 125) n=17 | 18 (-28, 62) n=13 | 51 (-50, 118) n=11 | 6 (-42, 63) n=13 | 0.72 |
| | % change in size | 1.0 (-14.0, 15.0) n=17 | -6.0 (-17.0, -1.0) n=13 | -12.0 (-23.0, 6.0) n=11 | 4.0 (-14.5, 14.0) n=13 | 0.35 |

Changes are from before to after treatment.

Median (interquartile range) is presented instead of mean (standard deviation) due to outliers.

p-values come from Kruskal-Wallis tests, the non-parametric alternative to one-way ANOVA