

CORRECTION

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# Correction: Cognitive performance of adult patients with SMA before and after treatment initiation with nusinersen

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**Correction:** BMC Neurol 23, 216 (2023)

<https://doi.org/10.1186/s12883-023-03261-z>

Following publication of the original article [1], the authors reported formal errors in the Figs. 1, 2, 3, 4 and 5. The axis labeling was inconsistent and figures were in low resolution. Also, reference #6 (Günther R, Wurster CD, Cordts I, Koch JC, Kamm C, Petzold D, et al. Patient-Reported Prevalence of Non-motor Symptoms Is Low in Adult Patients Suffering From 5q Spinal Muscular Atrophy. *Front Neurol.* 2019;10:1098. <https://doi.org/10.3389/fneur.2019.01098>) was incomplete and lacked DOI.

The correct figures are presented below.

The original article [1] has been updated.

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## Reference

1. Vidovic M, Freigang M, Aust E, et al. Cognitive performance of adult patients with SMA before and after treatment initiation with nusinersen. *BMC Neurol.* 2023;23:216. <https://doi.org/10.1186/s12883-023-03261-z>.

The original article can be found online at <https://doi.org/10.1186/s12883-023-03261-z>.

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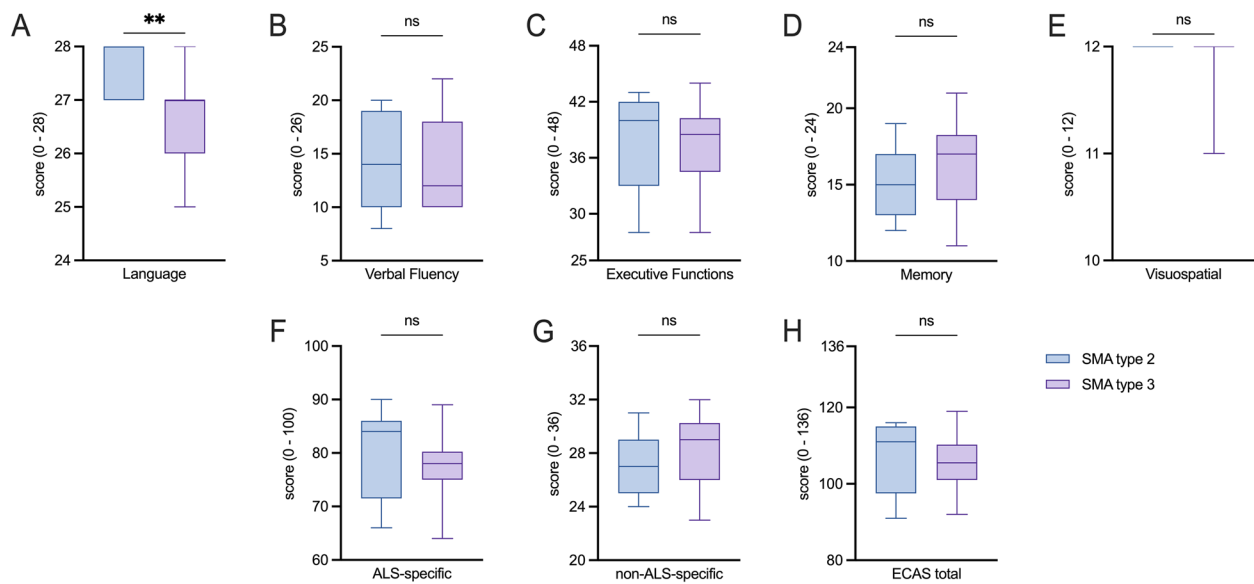
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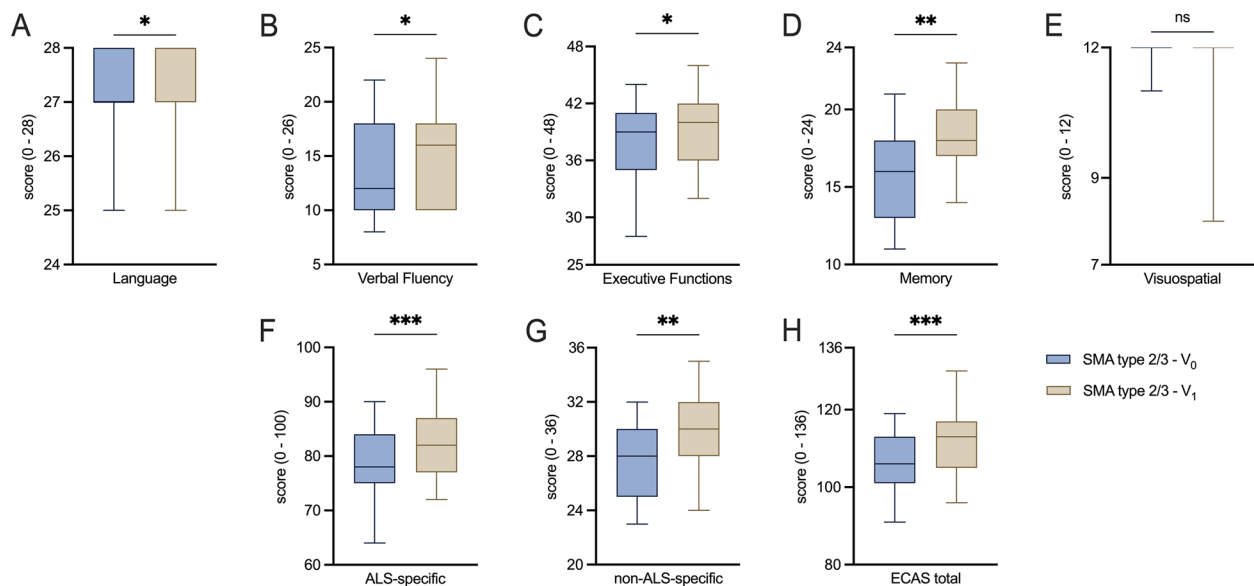


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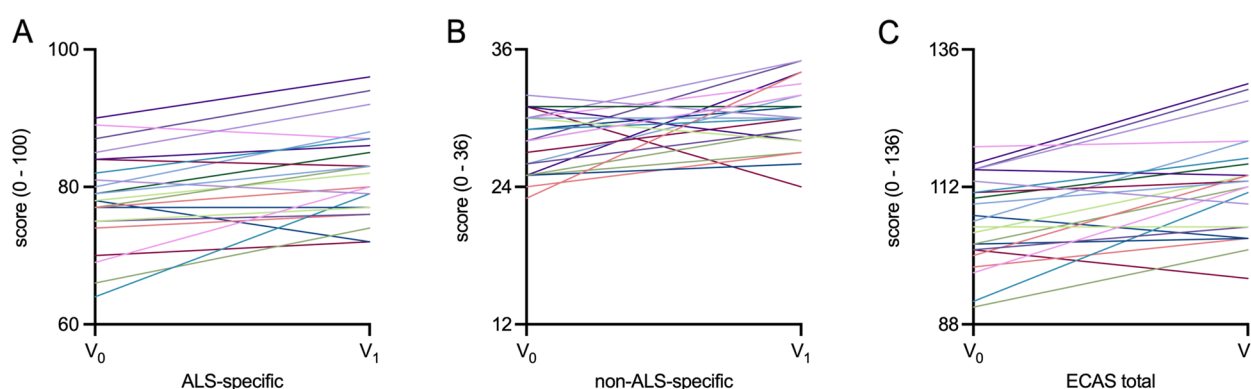
**Fig. 1** Comparison of ECAS absolute outcome scores of patients with SMA type 2 and 3 before treatment initiation (V0)

**A, B, C:** Box plots of the ALS-specific domains in patients with SMA type 2 compared to patients with SMA type 3. **D, E:** Box plots of the non-ALS-specific domains in patients with SMA type 2 compared to patients with SMA type 3. **F, G:** Box plots of ECAS subscores in patients with SMA type 2 compared to patients with SMA type 3. **H:** Boxplot of ECAS total score in patients with SMA type 2 compared to patients with SMA type 3. ALS: amyotrophic lateral sclerosis; ECAS: Edinburgh Cognitive and Behavioral ALS Screen; SMA: spinal muscular atrophy. Box plots show median (horizontal line), inter-quartile range (boxes) and scores outside of inter-quartile range (whiskers). Calculated by Mann-Whitney U-test. Significance levels: \*\*  $p < 0.01$ ; ns: statistically not significant



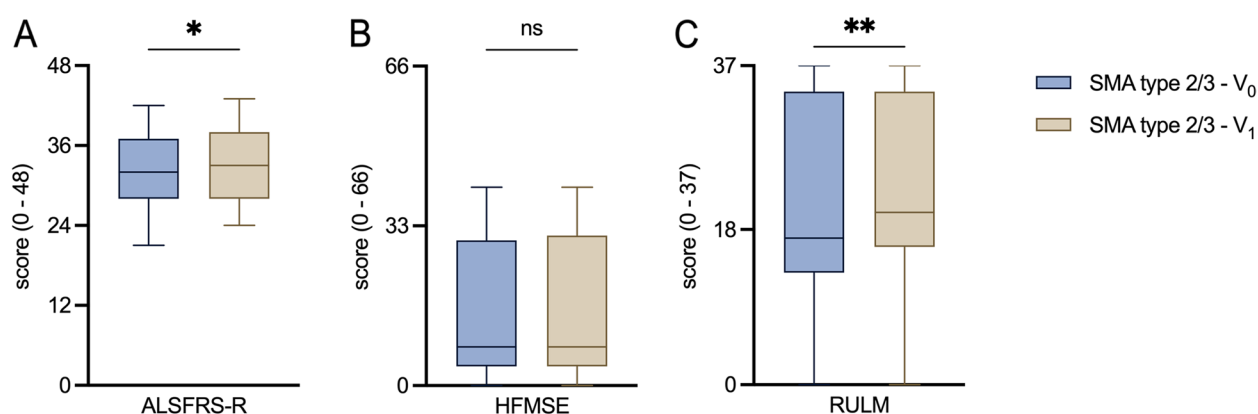
**Fig. 2** Comparison of ECAS absolute scores before and after treatment initiation

**A, B, C:** Box plots of the ALS-specific domains before and after treatment initiation with nusinersen in SMA cohort. **D, E:** Box plots of the non-ALS-specific domains before and after treatment initiation with nusinersen in SMA cohort. **F, G:** Box plots of ECAS subscores before and after treatment initiation with nusinersen in SMA cohort. **H:** Box plots of ECAS total score before and after treatment initiation with nusinersen in SMA cohort. ALS: Amyotrophic lateral sclerosis; ECAS: Edinburgh Cognitive and Behavioral ALS Screen; SMA: Spinal muscular atrophy. V0: Baseline visit before treatment initiation; V1: Follow-up visit 14 months after treatment initiation. Box plots show median (horizontal line), inter-quartile range (boxes) and scores outside of inter-quartile range (whiskers). Calculated by Wilcoxon signed-rank test. Significance levels: \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ ; ns: statistically not significant



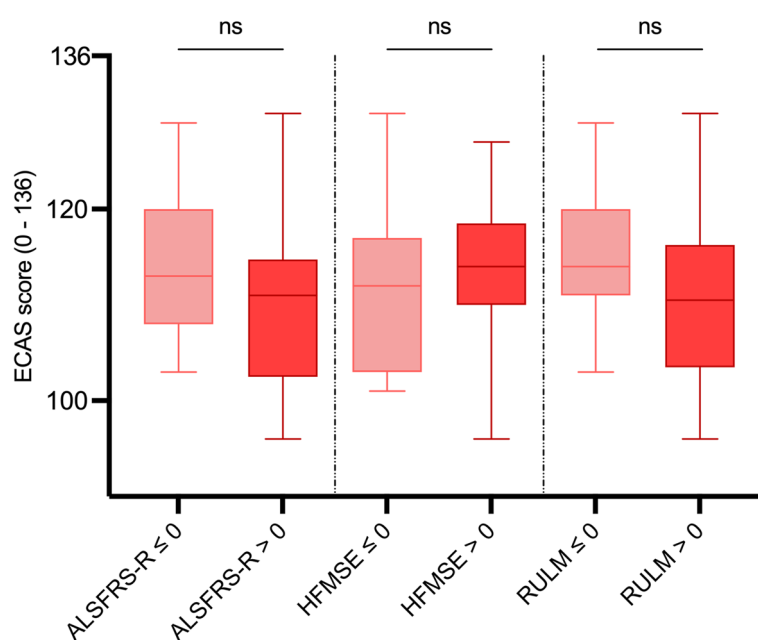
**Fig. 3** Spaghetti plots for longitudinal changes in ECAS of SMA cohort

Spaghetti plots for **A**: ALS-specific subscore, **B**: non-ALS-specific subscore, **C**: ECAS total score. ALS: amyotrophic lateral sclerosis; ECAS: Edinburgh Cognitive and Behavioral ALS Screen; SMA: spinal muscular atrophy. V0: Baseline visit before treatment initiation; V1: Follow-up visit 14 months after treatment initiation. Each line represents an individual patient



**Fig. 4** Comparison of motor outcome scores before and after treatment initiation

**A, B, C**: Box plots of the motor outcome scores before and after treatment initiation with nusinersen in SMA cohort. ALSFRS-R: ALS Functional Rating Scale Revised; HFMSE: Hammersmith Functional Motor Scale Expanded; RULM: Revised Upper Limb Module; SMA: Spinal muscular atrophy V0: Baseline visit before treatment initiation; V1: Follow-up visit 14 months after treatment initiation. Box plots show median (horizontal line), inter-quartile range (boxes) and scores outside of inter-quartile range (whiskers). Calculated by Wilcoxon signed-rank test. Significance levels: \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; ns: statistically not significant



**Fig. 5** Comparison of ECAS total scores between SMA type 2/3 patients with improvement (score change > 0) and without improvement (score change ≤ 0) in motor outcome scores. ALSFRS-R: ALS Functional Rating Scale Revised; ECAS: Edinburgh Cognitive and Behavioral ALS Screen; HFMSE: Hammersmith Functional Motor Scale Expanded; RULM: Revised Upper Limb Module; ns: statistically not significant; Box plots show median (horizontal line), inter-quartile range (boxes) and scores outside of inter-quartile range (whiskers). Calculated by Mann–Whitney U-test