

# The Effects of "Anti-Aging" Brain Supplements on Perinatal Development in Rats

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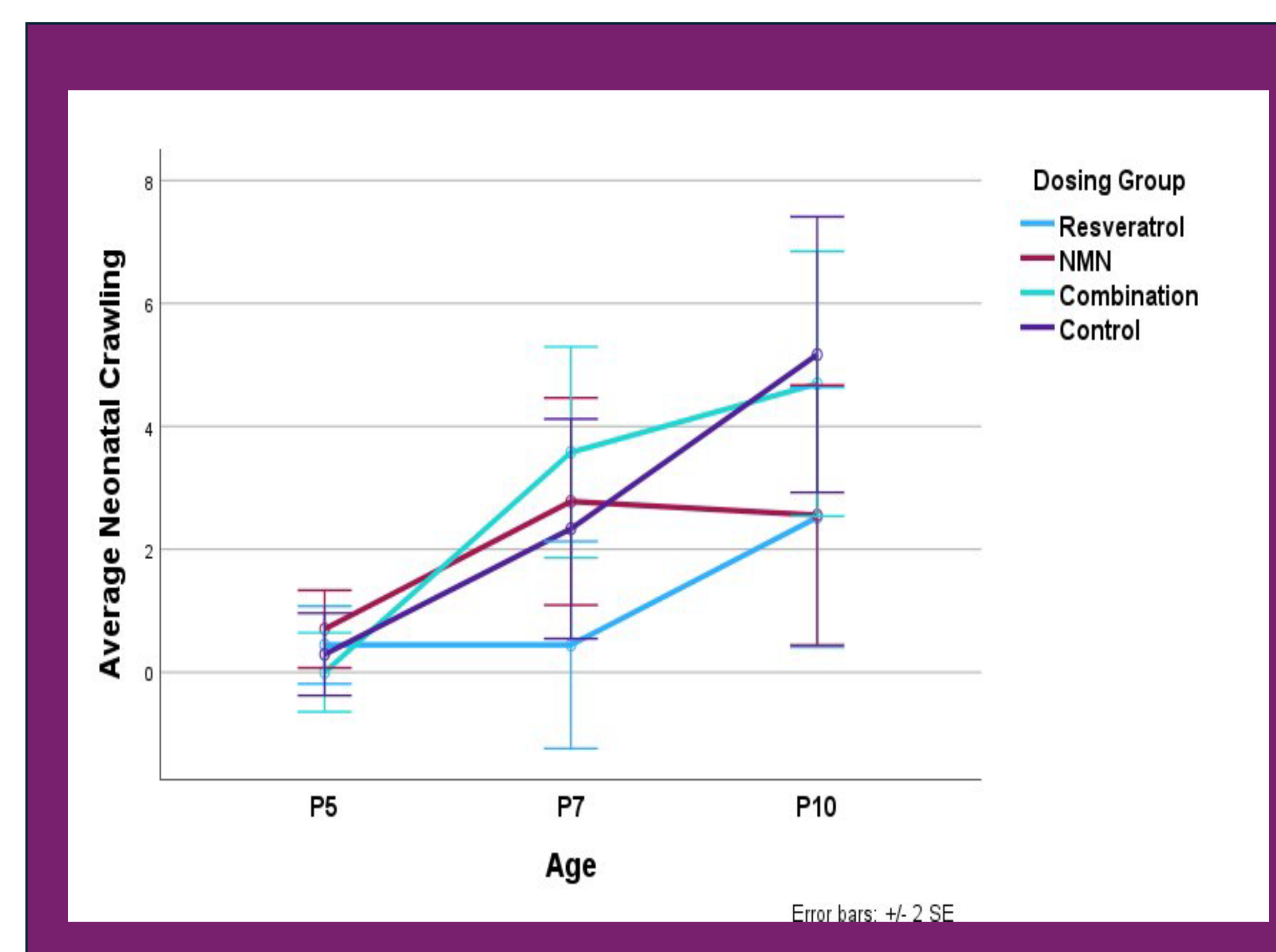
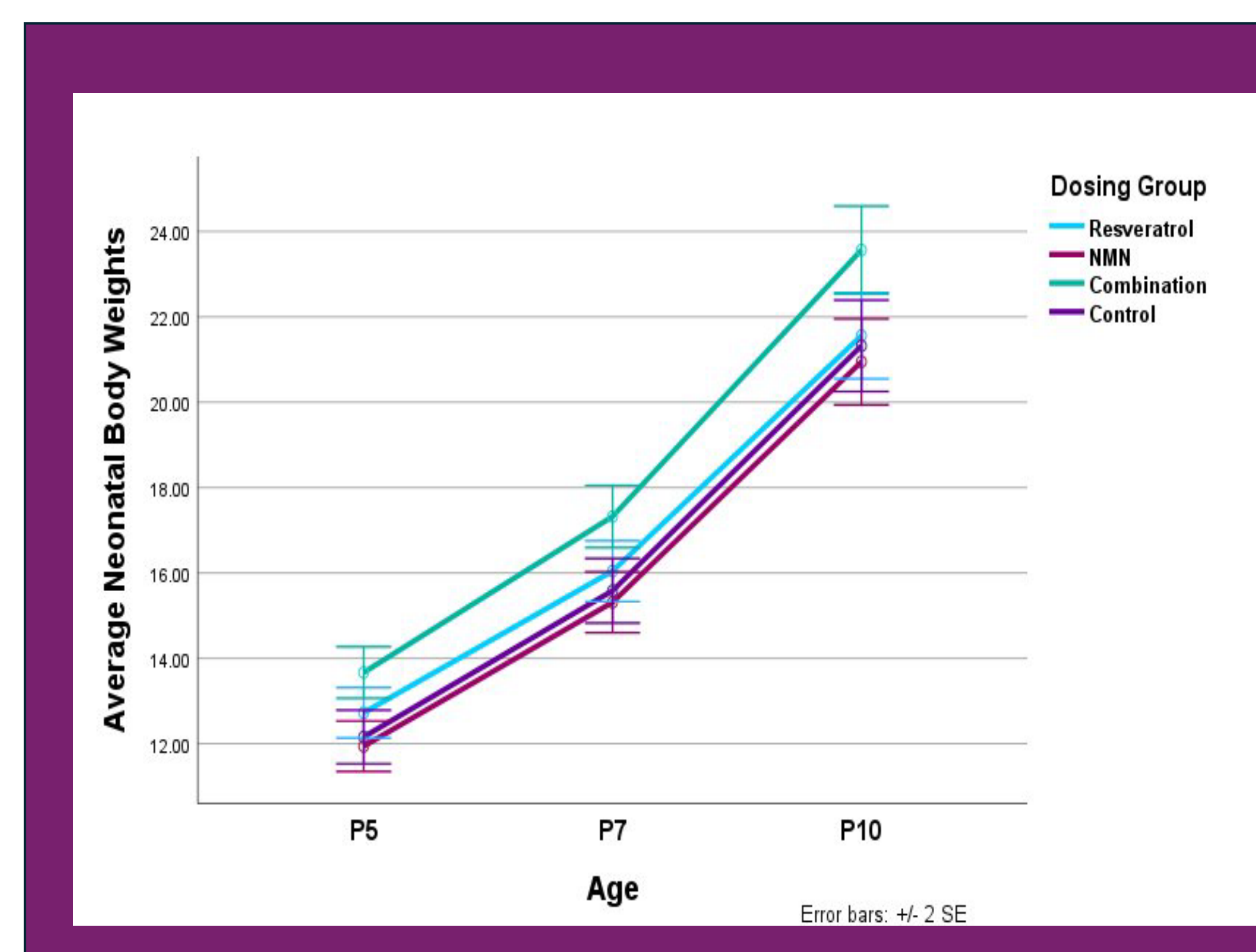
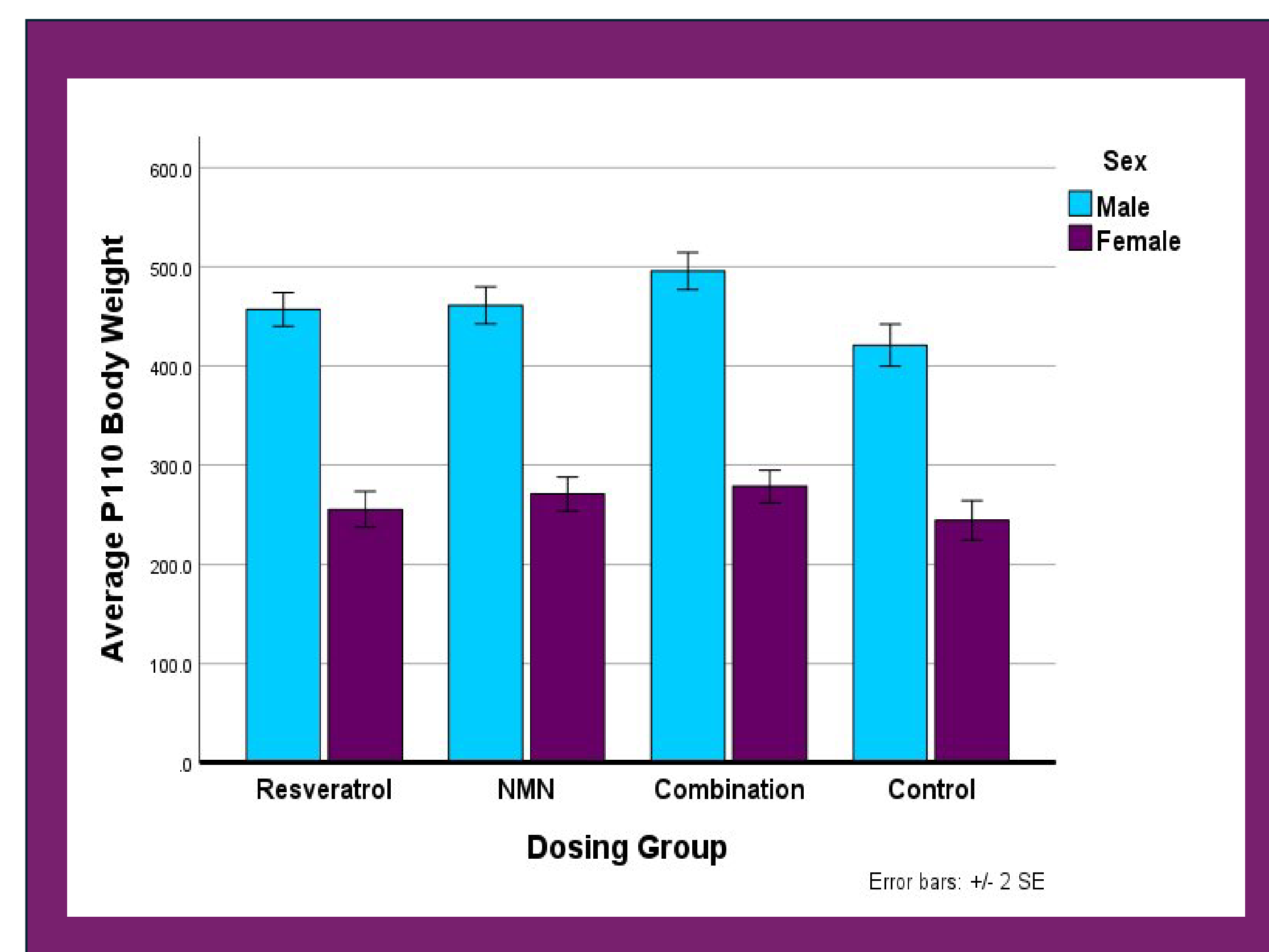
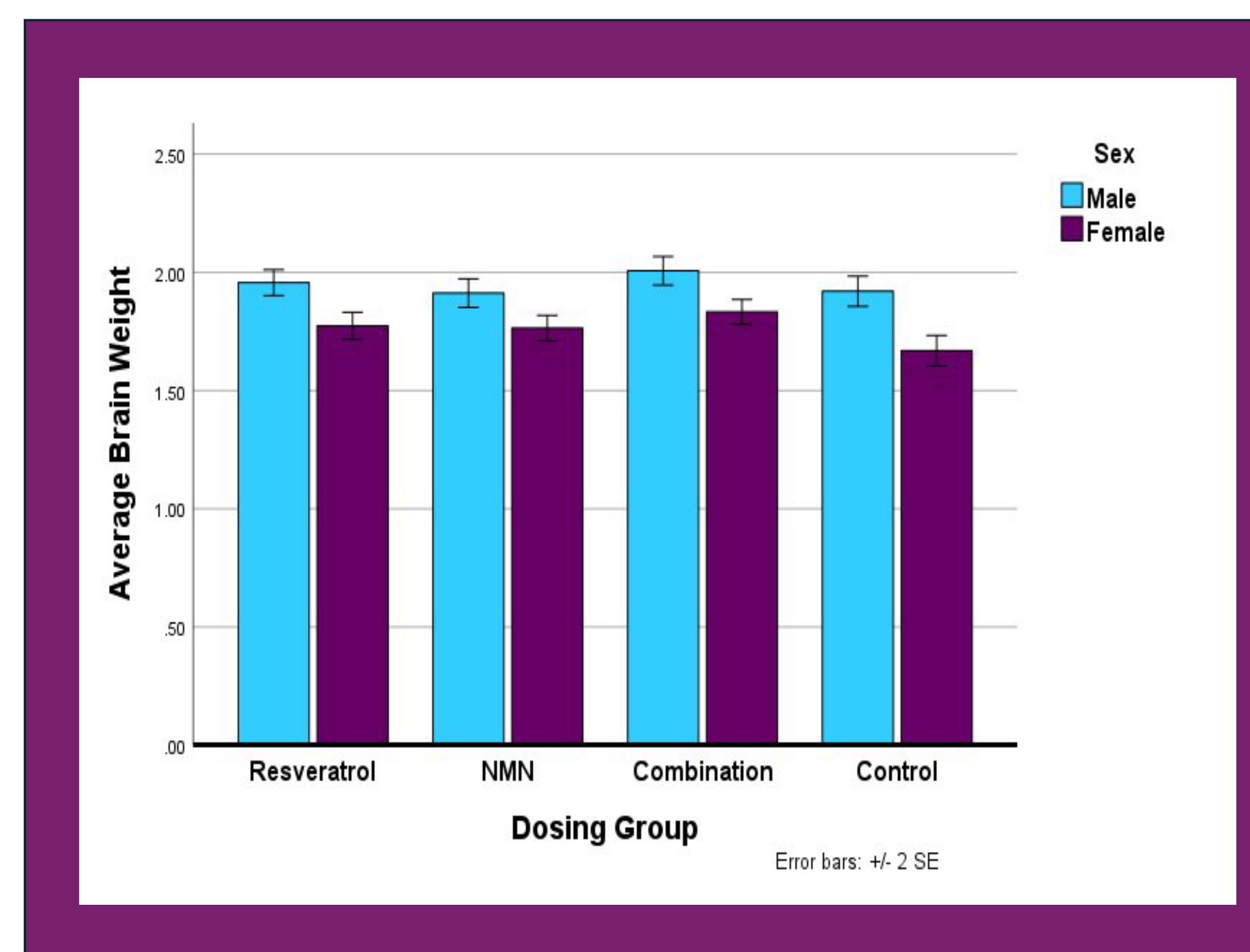
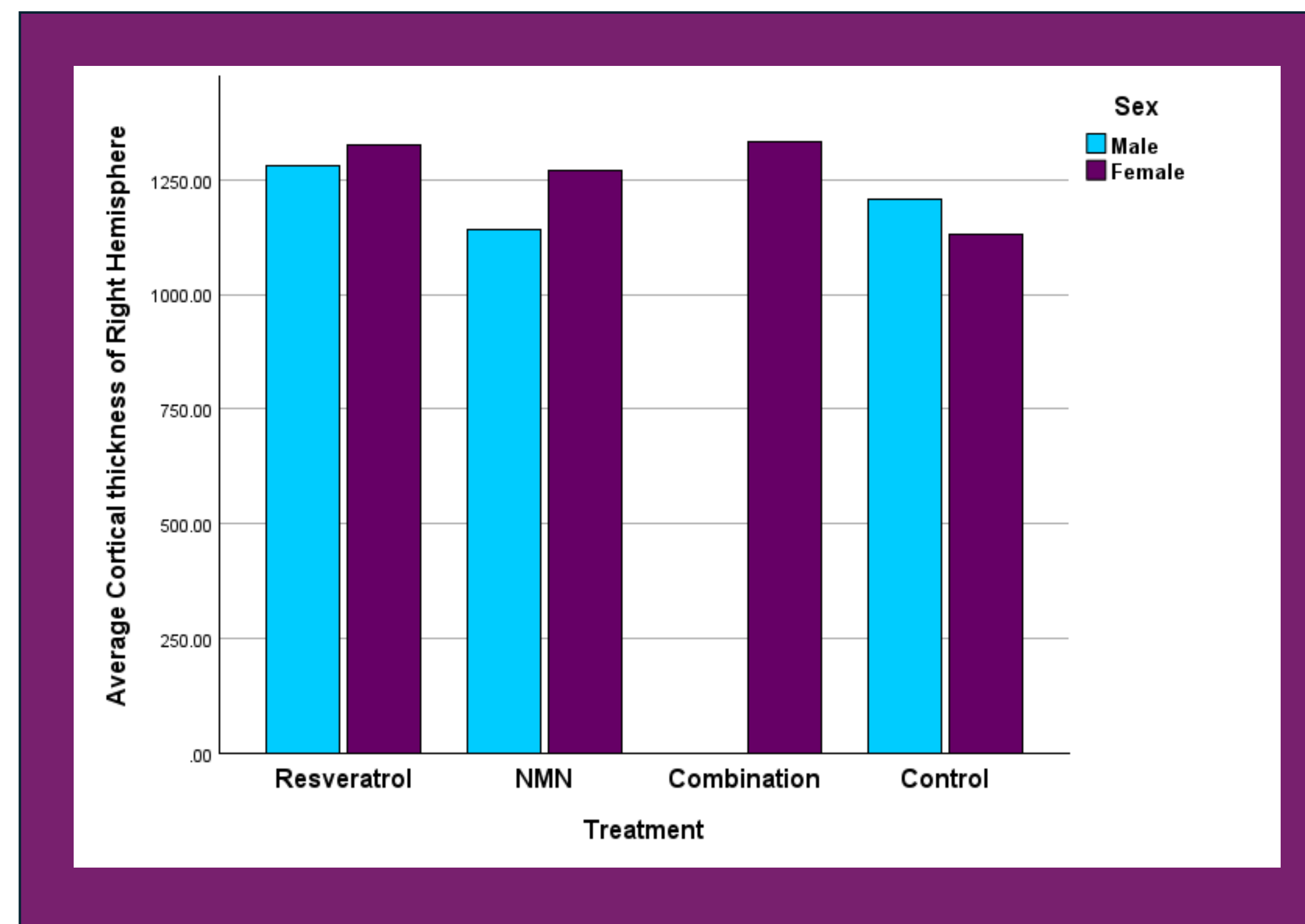


## Introduction

- NMN and Resveratrol are common active ingredients in supplements that may slow cognitive decline.
- They target mechanisms such as apoptosis.
- They have been marketed to pregnant women for their anti-inflammatory benefits.
- The influence of these supplements on perinatal development remains largely uninvestigated.

## Methods

- Subjects were pregnant Long Evans Rats and their offspring.
- Subjects were dosed with NMN alone, Resveratrol alone, or a combination of both supplements from E0 to P10.
- Neonatal behavioral testing occurred on P5, P7, and P10.
- Young adult behavioral testing occurred on P80
- Brain weights were collected on P12 and P110.
- Cortical thickness was measured using P12 brain tissue.



## Results

- Offspring exposed to both supplements were significantly heavier than controls and continued to outweigh control subjects through P110.
- For P110 brain weights, animals exposed to resveratrol alone or in combination exhibited significantly larger brain weights than control animals.
- Perinatal exposure to resveratrol delayed crawling activity levels in neonatal males and females. This difference was not seen in adults.

## Discussion

- Preliminary results suggest that perinatal exposure to both supplements may increase neonatal bodyweights. Perinatal exposure to both supplements and NMN may increase adult bodyweight.
- Perinatal exposure to either supplement may increase adult brain weight.

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