

Groups	APP (pg·mL ⁻¹)
Pre-match (n=9)	29.06 (75.60)
Post-match (n=21)	100.49 (118.50)
SRC (n=7)	38.20 (19.86)

Supplementary Table 1: Amyloid beta precursor protein (APP) concentration among groups.

Subjects range from ages 18 to 60 years. All subjects were Caucasian, two subjects were female.

Values are represented as median (IQR). SRC = sports-related concussion.

Group	Serum APP (pg·mL ⁻¹)
Pre-match (n=6)	57.98±63.21 (-8.36 – 124.31)
Post-match (n=6)	111.37±106.89 (-0.81 – 223.54)*

Supplementary Table 2: Descriptive data of amyloid beta precursor protein (APP) from the

paired T-test statistical analysis. All subjects were Caucasian males. Values are represented as

mean±SD (95% confidence interval). * = significantly different (p<0.05) compared to pre-match.

Groups	NfL (pg·mL ⁻¹)
Pre-match (n=9)	11.54 (9.60)
Post-match (n=15)	29.60 (57.45)
SRC (n=7)	8.71 (6.09)*

Supplementary Table 3: Serum neurofilament light (NfL) concentration among groups. Subjects range from ages 18 to 60 years. All subjects were Caucasian, two subjects were female. Values are represented as median (IQR) * = significantly different (p<0.05) compared to match-control. SRC = sports-related concussion.

Groups	VILIP-1 (pg·mL ⁻¹)
Pre-match (n=9)	32.63 (52.24)*
Post-match (n=15)	212.18 (345.00)
SRC (n=7)	30.21 (47.20)*

Supplementary Table 4: Serum visinin like protein-1 (VILIP-1) concentration among groups. Subjects range from ages 18 to 60 years. All subjects were Caucasian, two subjects were female. Values are represented as median (IQR). * = significantly different (p<0.05) compared to match-control. SRC = sports-related concussion.