

Supplementary Table 1. Correlations between age and muscle size (CSA) in BI and control groups (adults only)

Variable	Control (adults)		BI (adults)	
	r	p-value	r	p-value
Right				
Trap	0.368	0.002*	0.005	0.971
SpCap	-0.307	0.012*	-0.099	0.43
SpC	-0.054	0.666	0.163	0.194
SSCap	-0.432	0.000*	-0.274	0.026*
SSC	-0.169	0.175	-0.096	0.459
MS	-0.333	0.006*	0.137	0.28
LS	0.094	0.453	0.068	0.586
SCM	-0.233	0.06	-0.167	0.182
LCap & LC	-0.402	0.001*	-0.346	0.004*
PDLM	-0.146	0.241	-0.061	0.626
Left				
Trap	0.476	0.000*	0.229	0.066
SpCap	-0.272	0.027*	-0.192	0.123
SpC	-0.011	0.928	0.112	0.377
SSCap	-0.402	0.001*	-0.27	0.028*
SSC	-0.142	0.254	-0.113	0.38
MS	-0.3	0.014*	0.114	0.368
LS	0.067	0.591	0.158	0.204
SCM	-0.226	0.068	-0.114	0.367
LCap & LC	-0.443	0.000*	-0.294	0.016*
PDLM	-0.168	0.177	-0.122	0.33

CSA, cross-sectional area; BI, basilar invagination; r, Pearson correlation; Trap, trapezius; SpCap, splenius capitis; SpC, splenius cervicis; SSCap, semispinalis capitis; SSC, semispinalis cervicis; MS, multifidus; LS, levator scapulae; SCM, sternocleidomastoid; LCap & LC, longus capitis and Longus colli; PDLM, posterior deep layer muscles. *p < 0.05, statistically significant differences.