**Assessment of Respiratory Function in SCA-2 Ataxia**

**Results**

A total of 33 participants (39.4%, n=13 diagnosed with SCA2) were studied, with a mean age (SD) of 37.2 (14.4), and significant difference between the healthy and SCA2 groups for BMI (34.9 versus 27.9, p=0.03) and mean phrenic amplitude (0.66 versus 0.44, p=0.01). In the SCA2 group, no significant correlations were observed between age and duration of illness with respiratory parameters obtained by spirometry, but a moderate positive correlation was observed from the Berlin scale with weight (rho=0.61; p=0.02), BMI (rho=0.61; p=0.03) and waist circumference (rho=0.67; p=0.01) and strong correlation with cervical circumference (rho=0.80; p<0.01), as well as a moderate negative correlation between height and FEV1 (rho=-0.73; p<0.01). Also in this group, a strong positive correlation was found between the scores of the SARA and ICARS scales (rho=0.84; p<0.01); the SARA score had a moderate positive correlation with FEV1/FVC (rho=0.66; p=0.02) and disease duration (rho=0.75; p=0.03) and a moderate negative correlation with maximal inspiratory pressure in the sitting (rho=-0.64; p=0.03) and supine positions (rho=-0.67; p=0.01). In addition, a strong positive correlation was also found between the ICARS score and FEV1/CVF (rho=0.75; p<0.01) and duration of the disease (rho=0.79; p=0.02).