subscale of the HADS-Anxiety, HAQ and subscale of the SF-36 Pain (r=0,617, p<0.001; r=0,606, p<0.001; r= −0, 610, p<0.001, respectively). There was moderate correlation between the BETY scale and subscale of the HADS-Depression, subscales of the SF-36 form Physical Functioning, Role Limitations, Role Limitations Due to Emotioal and General Health Perception (r=-0,597, p<0,001; r=-0,576, p<0,001; r=-0,525, p<0,001; r=-0, 598, p<0,001; r=-0, 420, p<0,001, respectively) (Table 1–2).

Conclusions: There were high or moderate correlations between the BETY scale and valid and reliable scales that are developed for these parameters. The BETY scale can be considered as a valid scale in patients with RA.

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AB1404-HPR PRELIMINARY NORMATIVE DATA OF ULTRASONOGRAPHIC MUSCLE THICKNESS AND CROSS-SECTIONAL AREA OF THE THENAR MUSCLES

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Background: Muscle thickness and cross-sectional area (CSA) of the thenar muscles can vary depending on different pathologies (such as neuropathies, arthritis etc.). It is important to evaluate these muscles throughout the diagnosis and treatment processes to understand the pathophysiology of diseases and to identify new treatment strategies. Ultrasonographic imaging has been shown to be valid and reliable tool for the measurement of the muscle thickness and CSA of the particular thenar muscles,[1–2] however there are no studies demonstrating normative values of all thenar muscles.

Objectives: The purpose of this study is to obtain normative thickness and CSA values for the thenar muscles in healthy individuals by ultrasound and to assess the inter-rater reliability of sonographic muscle assessments.

Methods: The thenar muscles was examined ultrasonographically in eleven healthy volunteers. The assessment was carried out using Shimadzu SDU 1200-Pro US system working with 8–10 MHz linear probe. A custom-made foam cast was used for standardised positioning of the probe. The thickness and CSA parameters of FDI, OP, APB, flexor pollicis brevis (FPB), adductor pollicis (AdP) muscles were examined by two different investigators on the same image. Measurements were made from the palm side of the hand for APB, FPB, OP muscles and from the dorsal side of the hand for AdP and FDI muscles, using five different positions.[3] To analyse inter-rater reliability, the examinations of both raters were compared.

Results: Eleven healthy female subjects (mean age: 24.45±2.77 years; BMI: 21.43±2.48 kg/m$^{2)}$ were included in this study. Nine subjects had right hand dominancy and 2 had left hand dominancy. The reliability between two assessors, expressed as an interclass correlation coefficient (ICC), was excellent for all muscles (ICC range min:0.759, max:0.993 p<0.05).

The mean thickness values of muscles were ordered from thick to thin in longitudinal assessment as AP, FDI, FPB, OP, APB. The mean thickness values of muscles were ordered from thick to thin in transverse assessment as AP, FDI, FPB, OP, APB. The mean CSA values of muscles were ordered from thick to thin as AP, FPB, FDI, APB, OP.

Abstract AB1404-HPR – Table 1

Muscle		Longitudinal Thickness (cm)	ICC(p)	Transvers Thickness (cm)	ICC(p)	CSA (cm²)	ICC(p)
APB	D	0.54	0.976(<0.001)	0.43	0.877(<0.001)	1.0	0.969(<0.001)
	ND	0.54	0.943(<0.001)	0.38	0.872(<0.007)	0.90	0.836(=0.004)
OP	D	0.58	0.993(<0.001)	0.44	0.964(<0.001)	0.74	0.759(=0.017)
	ND	0.56	0.909(<0.001)	0.40	0.872(=0.002)	0.75	0.851(=0.003)
FPB	D	0.63	0.883(<0.001)	1.0	0.891(<0.001)	2.20	0.891(<0.001)
	ND	0.63	0.795(=0.01)	0.95	0.928(<0.001)	2.16	0.944(<0.001)
AP	D	1.26	0.997(<0.001)	1.28	0.981(<0.001)	2.68	0.900(<0.001)
	ND	1.25	0.967(<0.001)	1.26	0.986(<0.001)	2.42	0.886(<0.001)
FDI	D	1.03	0.977(<0.001)	0.95	0.956(<0.001)	1.96	0.948(<0.001)
	ND	1.0	0.968(<0.001)	0.93	0.959(<0.001)	1.97	0.896(<0.001)

D: dominant, ND: non-dominant

Conclusions: Ultrasonography can be used to reliably assess the thenar muscle architecture. This study is important to reveal the normative thickness and CSA values of the thenar muscles in healthy subjects. This data may provide a more comprehensive understanding of musculoskeletal problems and underlying pathophysiological mechanisms which consequently may have an impact on clinical decision making.

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AB1405-HPR THE COMPARISON OF POSTERIOR SHOULDER TIGHTNESS IN PATIENTS HAVING CHRONIC NECK PAIN AND IN HEALTHY SUBJECTS

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Background: Chronic neck pain (CNP) causes the disruption of the thoracic region and the shoulder girdle biomechanics besides the cervical region.The shoulder capsule is often thickened in shoulder problems, which causes shoulder tightness. In the literature, the effect of CNP on shoulder tightness was not investigated.

Objectives: The purpose of this study is to investigate the posterior shoulder tightness (PST) in patients having CNP and to interpret the effect of patients functional level and posture.

Methods: Non-specific CNP patients (n=16, female) and healthy subjects (n=16, female) were included and no shoulder problem was identified. The severity of the pain with Visual Analogue Scale (VAS); PST with bubble inclinometer; functional disability level with Neck Disability Index (NDI); influence of posture with New York Postural Rating Scale (NYPRS), upper limb muscle strength evaluated with handgrip. The Mann-Whitney U test Pearson correlation analysis was used to determine the relationship between PST and functional disability levels.

Results: Age and BMI values of healthy subjects and patients with CNP were similar (p>0.05). The mean duration of disease in patients with CNP was 60.63±35.37 months. Patients with CNP had lower PST values than healthy subjects, namely shoulder tightness is more than healthy subjects (p<0.001). The functional disability level score was higher in patients with CNP than in healthy subjects (p<0.001). NYPRS scores were lower in patients with CNP than in healthy subjects, namely the posture was more adversely affected in these patients (p<0.001). Handgrip values were lower and he pain severity at rest and activity was