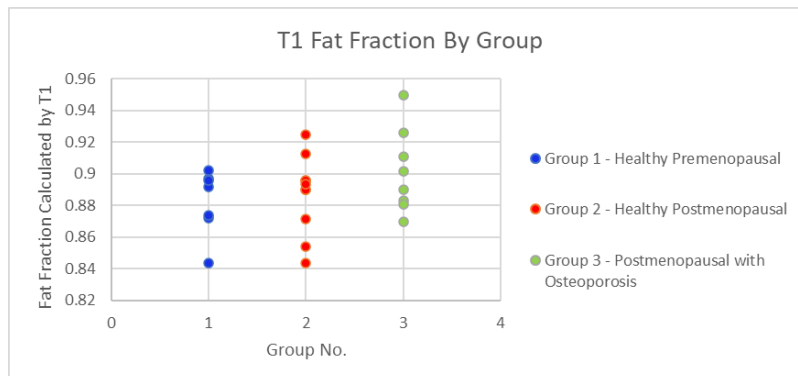


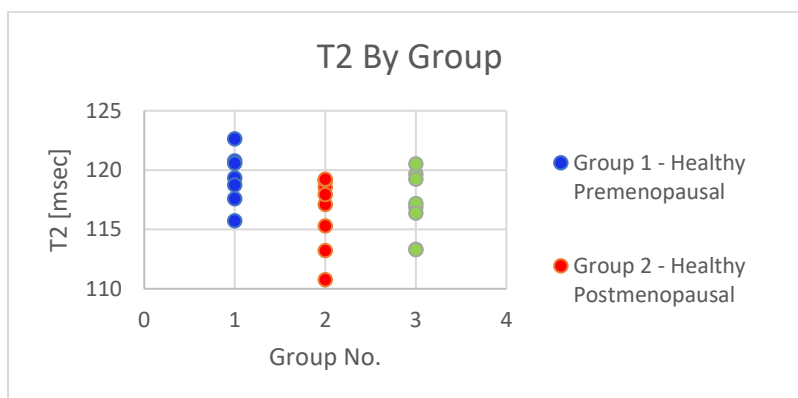
**Figure 2.1**

Scatter plot of the distribution of fat percentage values of the Radius BM according to the trial groups, as acquired by Dixon protocol. Fat percentage varied as follows: Healthy-premenopausal:  $90.43 \pm 0.82$  [%], Healthy-postmenopausal:  $90.37 \pm 1.72$  [%], Postmenopausal with Osteoporosis:  $91.99 \pm 1.38$  [%].



**Figure 3.1**

Scatter plot of the distribution of fat fraction values of the Radius BM, obtained by a two-compartment model of T1 relaxation time. Fat fraction varied as follows: Healthy-premenopausal:  $0.88 \pm 0.02$ , Healthy-postmenopausal:  $0.89 \pm 0.02$ , Postmenopausal with Osteoporosis:  $0.90 \pm 0.03$ .



**Figure 4.1**

*Scatter plot of the distribution of T2 values of the Radius BM by trial groups. T2 values varied as follows:*  
*Healthy-premenopausal: 119.35±2.27 [msec], Healthy-postmenopausal: 116.71±3.01 [msec],*  
*Postmenopausal with osteoporosis: 117.07±2.72 [msec].*