Sartori D<sup>1</sup>, Gameiro M<sup>1</sup>, Kawano P<sup>1</sup>, Guerra R<sup>1</sup>, Yamamoto H<sup>1</sup>, Amaro J<sup>1</sup> *1. Medical School of Botucatu - UNESP* 

# EFFECTS OF PELVIC FLOOR MUSCLE STRENGTH ON SEXUAL ACTIVITY AND ORGASM IN HEALTHY CONTINENTS WOMEN

## Hypothesis / aims of study

Improvement in sexual desire, performance during coitus and achievement of orgasm were observed in women who received pelvic floor muscle rehabilitation. Sexual performance is related to proprioception and PFM strength, making it important to assess perineal musculature strength and its role on sexual activity. The aim of this study was to correlate sexual activity and orgasm with PFM strength using perineometer and electromyography (EMG).

## Study design, materials and methods

Hundred forty healthy continents women were prospectively distributed into 4 groups according to age: G1 (n = 34) aged 30-40 years old; G2 (n = 38) 41-50 years old; G3 (n = 35) 51-60 years old and G4 (n = 33) over 60 years. The following parameters were evaluated: obstetric and gynecological history, frequency of sexual activity and orgasm achievement; BMI; objective evaluation of PFM strength using perineometer and surface EMG by vaginal electrode (MyoTrac 3G).

## **Results**

BMI was significant higher in G4 compared to G1 group  $(27.93 \pm 3.6 \text{ kg/cm2 vs.} 24.90 \pm 4.1 \text{ kg/cm2 p} = 0,040$ , respectively). The proportion of women who reported sexual activity was significantly higher in G1 compared to G3 and G4 groups (94.1% vs. 66.7% and 37.5% p = 0,001, respectively). During sexual intercourse, the proportion of women that reported orgasm was significantly higher in G1 compared to G3 and G4 (91.2% vs. 63.9% and 28.1% p = 0,001, respectively), demonstrating that sexual activity and orgasm decrease after 51 year old. Duration time of PFM contraction, using perineometer, was significantly higher in women that had sexual intercourse (Table 1). PFM contraction time, using perinemeter and EMG, were significantly higher in women with orgasm (Table 2).

## Interpretation of results

Although sexual intercourse frequency and orgasm may decrease with aging, a relationship between sexual activity and PFM strength remains apparent, as both sexually active women and those who have orgasms showed better PFM endurance than non sexually active women. Orgasm is multifactorial and maybe PFM strength does not have an important relationship with its occurance.

#### Concluding message

The duration of PFM contractions is greater in sexually active women, whether achieving orgasm or not.

 Table 1 – Mean and standard deviation of pelvic floor muscle (PFM) strength assessment using perineometer according to sexual activity.

	Sexual activity			
PFM strength				
	Absent	Present	p value	
Contraction (cmH <sub>2</sub> O)	12.83 ± 5.01	12.98 ± 6.79	p = 0.903	
Duration time of contraction (s)	2.92 ± 0.97	3.55 ± 1.78*	p = 0.033	

#### \*p<0.05

**Table 2 –** Mean and standard deviation of pelvic floor muscle (PFM) strength assessment using perineometer (Per) and electromyography (EMG) according to orgasm.

	Orgasm			
PFM strength				
	Absent	Present	p value	
Contraction (Per) (cmH <sub>2</sub> O)	13.22 ± 5.13	12.78 ± 6.84	p = 0.696	_
Duration time of contraction (Per) (s)	2.92 ± 0.93	3.59 ± 1.83 <sup>#</sup>	p = 0.018	
Sustained contraction (EMG) (µv)	12.27 ± 5.89	14.43 ± 6.16	p = 0.878	
Duration time of Sustained contraction (EMG) (s)	7.83 ± 1.63	8.44 ± 2.15 <sup>#</sup>	p = 0.038	

## <sup>#</sup>p<0.05

#### **Disclosures**

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