

**Objectives:** To analyse the difference in Young's modulus value of puborectalis muscle of puerpera with normal or decreased strength states of pelvic floor muscle fiber at 42 days after vaginal delivery.

**Methods:** From September 2018 to November 2019, 101 cases of puerpera at 42 days after vaginal delivery were selected. Young's modulus value of bilateral puborectalis muscle at rest and maximum anal contraction state was measured by shear wave elastography; strength levels of type I and II pelvic floor muscle fiber were recorded by electromyography. According to the strength levels of type I and II pelvic floor muscle fiber, 101 cases were divided into normal strength group of type I fiber ( $\geq 3$  level, 9cases), decreased strength group of type I fiber ( $< 3$  level, 92cases); normal strength group of type II fiber ( $\geq 3$  level, 14cases), decreased strength group of type II fiber ( $< 3$  level, 87cases), respectively. Young's modulus value of bilateral puborectalis muscle at rest state of different strength states of type I pelvic floor muscle fiber and Young's modulus value of bilateral puborectalis muscle at maximum anal contraction state of different strength states of type II pelvic floor muscle fiber were analysed, respectively.

**Results:** At 42 days after delivery, Young's modulus value of bilateral puborectalis muscle at rest state of the group with normal strength degree of type I pelvic floor fiber was greater than the group with decreased strength degree – the difference was statistically significant ( $p < 0.05$ ). Young's modulus value of the bilateral puborectalis muscle, at maximum anal contraction state of the group with normal strength degree of type II pelvic floor fiber, was greater than the group with decreased strength degree – the difference was statistically significant ( $p < 0.05$ ).

**Conclusions:** Young's modulus value of bilateral puborectalis muscle of puerpera with normal or decreased strength states of pelvic floor muscle were different. Shear wave elastography could evaluate the function of puborectalis, quantitatively.

VP68.07

### The study of evaluating the injury degree of pelvic floor muscle and effect of rehabilitation for puerpera by shear wave elastography

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**Objectives:** To explore the value of shear wave elastography in evaluating the injury degree of pelvic floor muscle at 42 days after vaginal delivery and rehabilitation effect after postpartum bionic physical therapy for puerpera.

**Methods:** From September 2018 to November 2019, 101 cases of puerpera at 42 days after vaginal delivery were selected, including 40 cases of pluripara and 61 cases of unipara. Shear wave elastography were performed at 42 days after vaginal delivery and after the postpartum bionic physical therapy, respectively. The difference between the two groups were compared.

**Results:**

- At 42 days after delivery and after postpartum bionic physical therapy, Young's modulus value of bilateral puborectalis muscle at maximum anal contraction state of pluripara was significantly lower than unipara ( $p < 0.05$ ). There was no significant statistical difference in Young's modulus value of bilateral puborectalis muscle at rest state between the two groups ( $p > 0.05$ ).
- Compared with 42 days after delivery, Young's modulus value of bilateral puborectalis muscle at rest and maximum anal contraction state of the two groups was significantly increased after postpartum bionic physical therapy ( $p < 0.05$ ).

**Conclusions:**

- The injury degree of pelvic floor muscle after delivery of pluripara was worse than unipara.

- Postpartum bionic physical therapy for pelvic floor had a positive effect on the recovery of pelvic floor muscle for both pluripara and unipara.
- Shear wave elastography could quantitatively evaluate the function of pelvic floor muscle.

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Abstract withdrawn

VP68.09

### Pelvic floor muscle strength and urinary incontinence at term

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**Objectives:** The aim of the present study was to evaluate the association between pelvic floor muscle contraction, as measured by the reduction of the anteroposterior diameter of the levator hiatus (APD) at maximum pelvic floor muscle contraction (PFMC) and the incidence of urinary incontinence at term of pregnancy.

**Methods:** We recruited a non-consecutive cohort of women at term. Each woman underwent transperineal ultrasound to measure APD at rest and maximum PFMC. Data regarding the presence of urinary incontinence, the performance of pelvic floor exercises were collected. APD at rest, at PFMC, and the change from rest to PFMC (DAPD) were compared between women with and without urinary incontinence.

**Results:** Overall, 73 women were included in the analysis (table 1). Women with urinary incontinence had APD values under contraction significantly higher than women with no incontinence ( $45 \pm 12.4$  vs.  $41 \pm 8.5$ ,  $P = 0.04$ ). No significant difference between the two groups was demonstrated regarding maternal characteristics, APD at rest, nor the change of APD from rest to PFMC.

**Conclusions:** Smaller anteroposterior diameter of the levator hiatus at pelvic contraction is associated with a lower incidence of urinary incontinence. Pelvic floor muscle strength, as measured by the difference from rest to maximum contraction, does not seem to be associated with urinary incontinence.

VP68.09: Table 1.

Patients characteristics	Total (n = 71)	Incontinence (n = 59)	No incontinence (n = 12)	P-value
Age	33.2 ± 4.8	30.5 ± 5.6	34.2 ± 4.6	0.05
BMI	25.71 ± 4.14	26.83 ± 2.47	25.64 ± 4.41	0.82
Gestational age	37.3 ± 1.2	37.5 ± 1.3	37.4 ± 1.2	0.59
APD rest	53.3 ± 10.0	55.4 ± 1.4	53.2 ± 9.7	0.42
APD contraction	41.3 ± 9.0	45.5 ± 12.5	41.2 ± 7.8	0.04
Delta APD	10.0 ± 6.7	6.5 ± 6.6	10.3 ± 7.0	0.19
Proportional APD percentage	17.6 ± 11.5	15.9 ± 10.4	20.1 ± 11.6	0.15

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### Ultrasonographic diagnosis of levator ani muscle lesions in primipara women

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**Objectives:** To better understand the occurrence of levator ani muscle (LAM) lesions on primipara women.