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CORRELATION OF URINARY INCONTINENCE IN POSTPARTUM WITH THE CONDITIONS MATERNAL AND NEONATAL

Hypothesis / aims of study

To determine the incidence of urinary incontinence in pregnancy, postpartum urinary incontinence and its relationship with maternal and neonatal conditions.

Study design, materials and methods

A retrospective cohort study mediated by a structured interview. We selected 1574 records of births in 2011, 51 of these were not included and from 1,523 remained, 858 were vaginal and 665 cesarean births. 246 of them were contacted after 12 months postpartum, being 149 vaginal and 97 post-cesarean births. For statistical analysis, was used the average, average deviation, Mann-Whitney and t-test, linear regression and the $\chi 2$ test.

Results

The groups were homogeneous in maternal characteristics with the majority with 20 years old, adequate maternal weight gain, preview parity and had no therapy during the birth. In neonatal characteristics were significant differences between groups in the following variables: weight of newborn head circumference and chest girth. Post-cesarean births were urinary incontinence at 25.8% , mothers that remained urinary incontinent 30 days postpartum were 39.9% and 12 months postpartum were 43.8%. Observed in a significant association between cesarean births urinary incontinence with 30 days postpartum ($p = 0.003$) and 12 months postpartum ($p<0.001$) with gestational urinary incontinence. Observed in vaginal births a significant association between urinary incontinence after 30 days ($p< 0.000$) and 12 months postpartum ($p<0.000$) with gestational urinary incontinence. Among the other variables there was no significant association in both groups.

Interpretation of results

As opposed to the recommendations of the World Health Organization the incidence of cesarean section in this study was 43.7% of the sample.

Both the occurrence of UIG data as their prevalence in the postpartum period are similar to those reported in the literature in which the UIG seems to double the probability of UI in the postpartum, independently vaginal or cesarean delivery.[1] Corroborating with the literature that shows IUG is a predictive factor for the UI after childbirth regardless of the delivery route.

Data from a study conducted in 2004 which followed 363 women one year after delivery showed that the prevalence of UI after vaginal and cesarean delivery was similar, which agrees with the results of this study.[2]

Regarding no significant association between UIG and previous parity, age, maternal weight gain and birth weight as demonstrated in other studies, can be explained by the fact that the samples of this study present a mean age of 25, gain adequate maternal weight and birth weight below 4 kg.[3]

The occurrence of postpartum UI 12 months postpartum cesarean, which showed significant association with UIG variable, group study is similar to that observed in association with UIG UI postpartum.

Concluding message

There was incidence of gestational urinary incontinence and urinary incontinence with 30 days and 12 months postpartum in both groups (vaginal and cesarean), without difference between them. There was no significant association of urinary incontinence with gestational maternal and neonatal variables in both groups. There was a significant association between urinary incontinence 30 days and 12 months postpartum urinary incontinence in both gestational groups.

Table 1: Mean and Standard Deviation of maternal conditions and association between routes of delivery.

	Vaginal Delivery n=149		Cesarean Delivery n=97		
Variables	Mean	SD	Mean	SD	P
Age	24.4	5.5	26	6.0	0.06
Gestational Week	38.9	1.01	38.9	4.1	0.51
Maternal Weight Gain	12	5.2	12.8	5.51	0.20
Previous Parity	78	52.3	55	54.0	0.42
Physiotherapy	45	30.2	20	20.4	0.85

Mann-Whitney test between the variables in each mode of delivery was considered 5% significance level ($p <0.05$).

Table 2: Number and percentage of participants who reported urinary incontinence (UI) and association between routes of delivery.

	Vaginal Delivery n=149				Cesarean Delivery n=97				
Variables	Yes	%	No	%	Yes	%	No	%	P
UI Prior to Pregnancy	11	7,4	138	92,6	5	5,1	92	94,8	0,55
UI gestational	62	41,6	87	58,3	25	25,8	72	74,2	0,70
UI 30 Days PP	33	22,1	116	77,8	10	10,3	87	89,6	0,08
UI 12 Months PP	31	20,8	118	79,1	11	11,3	86	88,6	0,97

Chi-square test between yes responses for each mode of delivery was considered 5% significance level ($p < 0.05$).

Table 3: Sample Characterization with number and percentage of the evolution of vaginal delivery.

	Vaginal Delivery n=149			
Variables	Yes	%	No	%
SVD*	54	36,2	95	63,8
VDF**	2	1,3	147	98,7
VD Episiotomy	80	53,7	69	46,3
VD Laceration	11	7,4	138	92,6
VD Episiotomy + laceration	142	95,3	7	4,7

* SVD = spontaneous vaginal delivery, **PVF = vaginal delivery using forceps, VD = vaginal delivery.

References

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Disclosures

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