377. MACROSOMIA AND INSTRUMENTAL DELIVERIES AS RISK FACTORS FOR INCONTINENCE AND DYSPAREUNIA.

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AIM OF THE STUDY

Instrumental vaginal delivery has long been recognized as a risk factor in pelvic floor morbidity, mainly due to an injury in the levator ani muscle, among other causes. Instrumental deliveries would cause an overdistention of the muscle, its injury and, in some cases, an avulsion.

The role of vaginal deliveries of infants >4000g in levator ani injury is controversial. Some studies report no increase in muscle injuries as newborn weigh increases.

Perineal pain, dyspareunia, urinary and anal incontinence, and pelvic organ prolapse (POP) are the most frequent symptoms in early and late postpartum period.

The aim of this study is to determine the relation between macrosomia and instrumental deliveries with urinary incontinence (UI), anal incontinence (IA) and dyspareunia, both of them as independent factors.

MATERIAL AND METHODS

Two studies were performed. In the first one, we compared a historical group of no-macrosomia and no perineal injury or maximum grade 2 perineal injury (n=63), with a group of macrosomal deliveries with the same standards for perineal injury (n=57), obtained from delivery data between January 2015 and July 2017. Symptomatology data was obtained by telephone survey, with results from ICIQ and presence of dyspareunia at 6 months postpartum.

The second study included 105 consecutive deliveries until getting 2 homogeneous groups in terms of age and BMI. We compared the effect of instrumental deliveries on urinary incontinence and dyspareunia. Telephone survey was performed to every patient, obtaining data from ICIQ and presence of dyspareunia.

RESULTS

Age and BMI presented significant differences between the two groups (macrosomas/no macrosomas: 33y vs 29y; macrosomas/no macrosomas: BMI 25.9 vs BMI 22.6). We found out greater incidence of UI (OR= 5.9, IC95%: 1.6-22) and dyspareunia (OR=9, IC95%: 1,9-42) at 6 months postpartum in the group with macrosomic fetus deliveries.

We also compared a subgroup of macrosomal deliveries with no perineal injury or 1st grade injury, with no-macrosomia group. No statistical differences were found in terms of UI and dyspareunia.

Anal incontinence was impossible to determine because lack of sample.

In the second study, we stratified the patients in two groups: instrumental deliveries (n=42) and no instrumental deliveries (n=63). An increased risk of developing UI in instrumental deliveries was observed [OR = 2.4 (IC95% 1-5.6)], and also an increased incidence of dyspareunia [OR = 5.6 (IC95% 2.3-13.4)] .

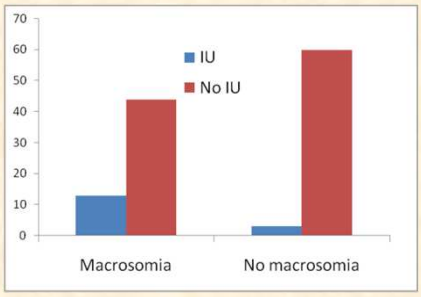

Figure 1: Macrosomia and IU

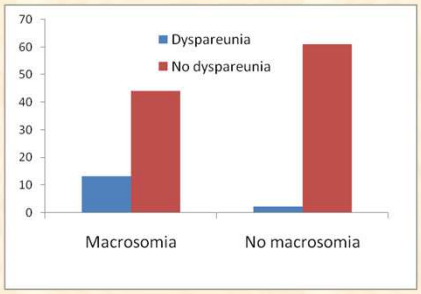

Figure 2: Macrosomia and Dyspareunia

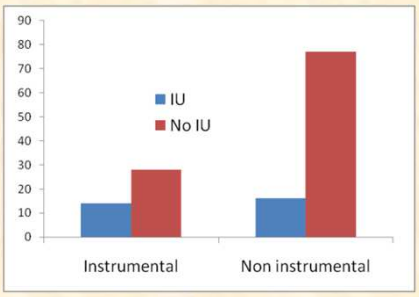

Figure 3: Instrumentation and IU

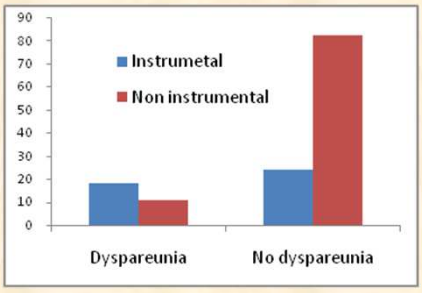

Figure 4: Instrumentation and Dyspareunia

INTERPRETATION OF RESULTS

Macrosomic fetus deliveries and instrumentation seem to increase the risk of developing UI and dyspareunia.

In the case of macrosomia, the presence of perineal morbidity seems to be caused by 2n grade perineal injury, as stated in other studies, defending macrosomia alone is not a risk factor for pelvic muscles injury, but perineal tears are.

CONCLUSIONS

The lesion of the pelvic floor muscles, mainly the levator ani muscle, will lead in the short and long term to perineal morbidity with UI and dyspareunia. It remains to be proven if macrosomia on its own is a risk factor for the levator ani injury or is its association with tears that lead to pelvic muscles lesion. It would be interesting to conduct a study comparing macromia with no lesion or first degree tear with macrosomia with second degree tear or greater, in order to determine if perineal morbidity differs.

On the other hand, it is difficult to know whether pelvic floor morbidity in instrumental deliveries is due to itself or to the perineal tear associated, as there are few instrumental deliveries without perineal injury.

Furthermore, we need a more powerful study with a larger sample to assess the effect of both risk factors, macrosomia and instrumentation, in anal incontinence due to the low frequency of this complication in deliveries without risk factors.

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