OBSTETRIC ANAL SPHINCTER INJURY. MODE OF VAGINAL DELIVERY AND REPERCUSSIONS ON THE PELVIC FLOOR.

Hypothesis / aims of study
To evaluate the prevalence of obstetric anal sphincter injury (OASI) at our center and to assess the functional and anatomical repercussions of OASI on the pelvic floor

Study design, materials and methods
This was a retrospective study where we evaluated all the third- and fourth-degree perineal tears during 2016 at our tertiary university hospital. The data collected included epidemiological data, mode of vaginal delivery, degree of the tear and the type of episiotomy if performed. Postpartum follow-up was carried out by a multidisciplinary Pelvic Floor Unit where associated symptoms and the presence of avulsion by both physical examination and ultrasound were recorded.

Results
A total of 4426 deliveries were attended during 2016 at our hospital, of which 3974 were vaginal deliveries. Obstetric anal sphincter injury occurred in 1.93% (n=77) of the deliveries. Sixty nine were third-degree perineal tears (89.6%) and 8 were fourth-degree perineal tears (10.4%). Of these, 64.9% were instrumental deliveries using forceps (10.3% of the forceps deliveries in 2016 had an OASI) and the remaining 35.1% were normal vaginal deliveries (0.78% of the normal vaginal deliveries in 2016 had an OASI). No association were found between fourth-degree perineal tears and the use of forceps (10% in forceps and 11.1% in normal vaginal deliveries). We also found no association between the use of midline episiotomy and fourth-degree perineal tears (midline episiotomies were performed in 15% of third-degree perineal tears and in 13% of fourth-degree perineal tears). Episiotomy was not performed in 38% of OASI, both in third and fourth-degree perineal tears. Anal continence was referred in 98.7% of patients at 6 months. Levator ani muscle avulsion in patients with OASI was less than 18%.

Interpretation of results
Although forceps delivery and midline episiotomy have described as risk factors for OASI we did not find any associations between fourth-degree perineal tears with forceps delivery and the use of midline episiotomy.

Concluding message
The increase in the diagnosis of less severe perineal tears (IIIa and IIIb) and, in turn, the high percentage of asymptomatic patients, could be associated with increased training of professionals on anal sphincter tears. On the other hand, the rate of avulsions in our population is lower in comparison to available literature.

Disclosures
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