

## **EVOLUTION OF THE PERCENTAGE OF EPISIOTOMY AND ITS RELATIONSHIP WITH THE RATE OF PERINEAL HIGH GRADE TEARS**

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### **INTRODUCTION**

Episiotomy is understood as the completion of a surgical incision in the area of the perineum made in the second period of delivery, whose purpose is to expand the soft canal of labor and thus shorten this period. There is no evidence that performing episiotomy systematically reduces third- and fourth-degree tears (OASIS).

Even so, we must take into account the performance of episiotomy in selected cases, where there has been evidence of prevention of OASIS, such as, for example, when there is narrow or poor vaginovulvoperineal elasticity, excess fetal volume, shoulder dystocia, local conditions that predispose to tears (edema, condylomas, scars...), etc.

The main objective of this work is to know the evolution of the percentage of episiotomies in our center in the deliveries from 2014 to 2017 and its influence on the percentage of severe tears of the perineum (tear of III and / or IV degree). As a secondary objective, differences were studied according to the type of delivery, eutocic or instrumented.

### **PATIENTS AND METHODOLOGY**

An observational analytical study of a retrospective cohort was carried out, whose study population was all pregnant women with a vaginal delivery that was attended in our hospital between 2014 and 2017.

A total of 4414 births were included, the variables studied were the performance of episiotomy (yes / no) as an independent variable and the high grade tear (yes / no) as a dependent variable, stratifying the data according to the type of delivery: eutocic or instrumented (forceps, vacuum and spatulas) The annual percentage of episiotomies and high grade tears throughout the period analyzed was assessed using the Chi-square test, considering statistical significance with  $p < 0.05$ .

### **RESULTS**

The total percentage of episiotomies in the eutocic delivery group ranged from 46.7% in 2014 to 30.8% in 2017, with an average of 39.9%, being this decrease statistically significant ( $p < 0.001$ ).

The percentage of high grade tears in the eutocic delivery group increased from 0.7% to 1.3%, without the trend being statistically significant ( $p = 0.163$ ).

The total percentage of episiotomies in the instrumental delivery group varied between 96.9% in 2014 and 88.9% in 2017, with an average of 92.6%, without the trend being statistically significant ( $p = 0.928$ ).

The percentage of high grade tears in the instrumental delivery group ranged between 6.1% and 6.5%, without the trend being statistically significant ( $p = 0.896$ ).

Of the total deliveries, the percentage of high grade tears ranged from 1.2% in 2014 to 2% in 2017, without this increase being statistically significant ( $p = 0.632$ ).

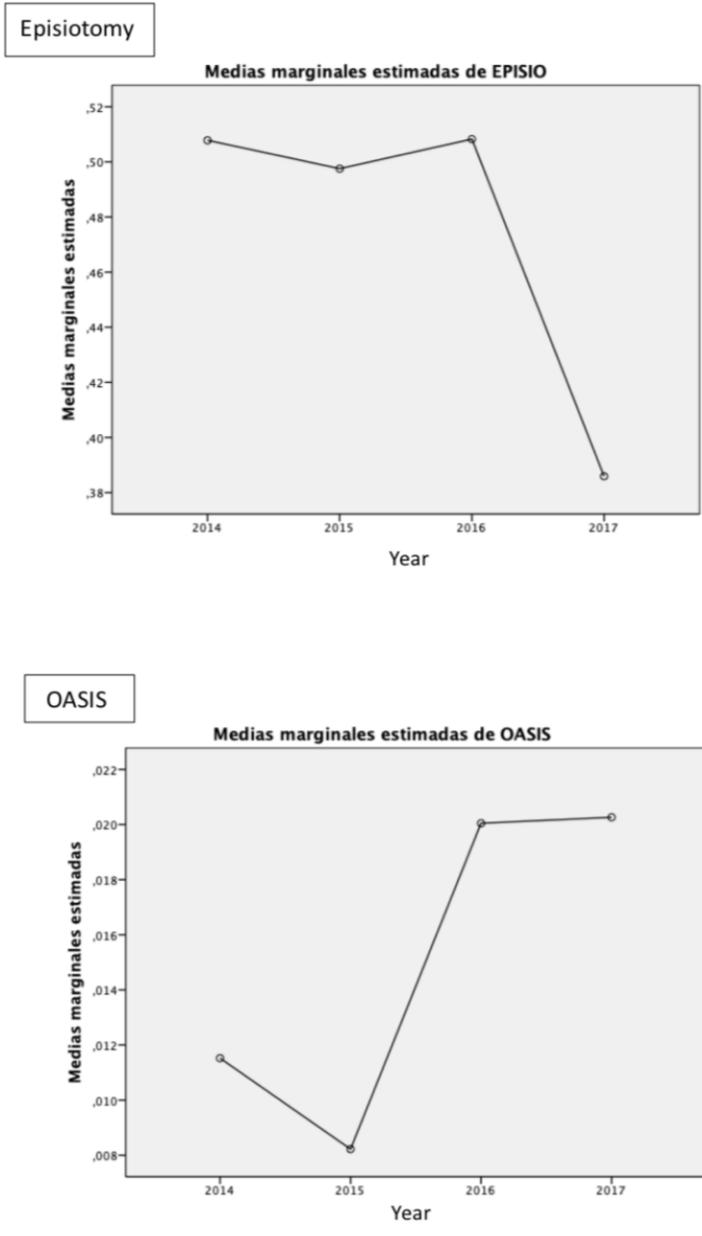
**Table 1.** Evolution of OASIS (2014 vs. 2017).

TIPO_PARTO			OASIS		Total	
			NO	SI		
Eutócico	AÑO	2014	Recuento	1109	8	1117
			% dentro de AÑO	99,3%	0,7%	100,0%
	2017	Recuento	969	13	982	
		% dentro de AÑO	98,7%	1,3%	100,0%	
	Total	Recuento	2078	21	2099	
		% dentro de AÑO	99,0%	1,0%	100,0%	
Instrumentado	AÑO	2014	Recuento	92	6	98
			% dentro de AÑO	93,9%	6,1%	100,0%
	2017	Recuento	143	10	153	
		% dentro de AÑO	93,5%	6,5%	100,0%	
	Total	Recuento	235	16	251	
		% dentro de AÑO	93,6%	6,4%	100,0%	
Total	AÑO	2014	Recuento	1201	14	1215
			% dentro de AÑO	98,8%	1,2%	100,0%
	2017	Recuento	1112	23	1135	
		% dentro de AÑO	98,0%	2,0%	100,0%	
	Total	Recuento	2313	37	2350	
		% dentro de AÑO	98,4%	1,6%	100,0%	

**Table 2.** Evolution of episiotomy (2014 vs. 2017).

TIPO_PARTO			EPISIO		Total	
			NO	SI		
Eutócico	AÑO	2014	Recuento	595	522	1117
			% dentro de AÑO	53,3%	46,7%	100,0%
	2017	Recuento	680	302	982	
		% dentro de AÑO	69,2%	30,8%	100,0%	
	Total	Recuento	1275	824	2099	
		% dentro de AÑO	60,7%	39,3%	100,0%	
Instrumentado	AÑO	2014	Recuento	3	95	98
			% dentro de AÑO	3,1%	96,9%	100,0%
	2017	Recuento	17	136	153	
		% dentro de AÑO	11,1%	88,9%	100,0%	
	Total	Recuento	20	231	251	
		% dentro de AÑO	8,0%	92,0%	100,0%	
Total	AÑO	2014	Recuento	598	617	1215
			% dentro de AÑO	49,2%	50,8%	100,0%
	2017	Recuento	697	438	1135	
		% dentro de AÑO	61,4%	38,6%	100,0%	
	Total	Recuento	1295	1055	2350	
		% dentro de AÑO	55,1%	44,9%	100,0%	

**EPISIOTOMY VS. OASIS**



**Chart 1.** Episiotomy vs. OASIS.

## **INTERPRETATION OF RESULTS**

Gradually the percentage of episiotomies in the eutocic births in our center has been reduced, the decrease has been of 16% in a period of 4 years.

In instrumented deliveries we see a not so marked decline, an 8% in a period of 4 years, a fact that can be explained by an increase in awareness of the techniques of perineal protection (hands on) and the implementation of the use of vacuum in our center during the period studied.

We can see an increase in instrumented deliveries without episiotomy or tears (deliveries without perineal injuries) since the use of vacuum was established, since it is less traumatic for the perineal area. Although we have not shown statistical significance, we see a tendency to increase the percentage of high grade perineal tears.

Being this increase of 0.6% in the eutocic births, and 0.4% in the instrumented ones.

## **CONCLUSIONS**

The importance of presenting a third- or fourth-degree tear at the time of delivery can be summarized by saying that the probability of presenting incontinence to feces, at 6 weeks of delivery, is almost 3 times higher in those women who presented a high grade tear than in those that did not.

We see a significant decrease in the performance of episiotomies and a tendency to increase the OASIS rate year by year, whose statistical significance is much more difficult to demonstrate due to its low prevalence. It should be noted that the percentage of high grade tears is underestimated, due to the lack of diagnosis, there being a considerable number of hidden tears.

Therefore, we cannot affirm that the reduction in the rate of episiotomies is not a risk factor for OASIS, since we observe an upward trend in these. The incidence of high grade tears is much higher in instrumented deliveries compared to eutocic deliveries (6.3% vs. 1%), but the increase over 4 years is much lower, since the percentage of episiotomies remains stable.

It is important to remember the importance of performing episiotomy in selected cases (a clear example is instrumented delivery) to avoid the appearance of high grade tears as well as the correct diagnosis of these, in order to repair them correctly and avoid further morbidity.

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