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BACKGROUND

- All patients with congenital diaphragmatic hernia (CDH) are intubated in the delivery room regardless of clinical conditions. However, there are no data on the repercussions of tracheal intubation and positive pressure (PP) in CDH patients with good conditions.

OBJECTIVE

- This study aims to find association between intubation in delivery room in CDH with good conditions and repercussions in the first hour of life.

METHODS

- Retrospective study.
- Selected Newborns with CDH born between 1982 and 2017.
- Excluded: heart disease, genetic syndrome, placental abruption, cord prolapse, and lack of data.
- Study groups:
 - ✓ Group 1: newborn with HR < 100 and /or irregular breathing or apnea at birth.
 - ✓ Group 2: newborn with HR > 100 and regular breathing at birth.
- Arterial blood gas analysis was performed up to 1 hour after birth. Initial ventilatory parameters of newborn admission were PEEP 5, PI 20, FR 40, FiO₂ 100%.
- Fisher's exact test and Wilcoxon non-parametric test (SAS 9.4) were used for analysis.

RESULTS

Figure 1. Study Design

Table 1. Analysis of the gasometric repercussions according to the study group.

	PH	PO ₂	PCO ₂	HCO ₃
	Median(Q1;Q3)	Median(Q1;Q3)	Median(Q1;Q3)	Median(Q1;Q3)
Group 1	7,2 (6,9; 7,3)	52,3 (35,8; 88,0)	48,0 (35,0; 62,1)	21,3 (18,0; 22,5)
Group 2	7,2 (7,1; 7,2)	107,0 (54,3; 151,0)	57,6 (46,0; 61,5)	22,0 (19,5; 22,4)
p-value	0,76	0,06	0,45	0,65

Table 2. Analysis of death frequency according to the study group.

Death	Group 1	Group 2	p-value
Yes	3 (33%)	4 (36%)	0,36
No	6 (67%)	7 (64%)	
Total	9	11	

- There was no association between intubation in the delivery room only because CDH and PH, bicarbonate and mortality.

CONCLUSION

- No negative repercussions were observed with intubation in CDH with good conditions, which should suggest that intubation of these newborns in delivery room is a safer attitude.