



PRESTO vs. EXIT for Treatment of Prenatally Diagnosed Difficult Airway: Treatment and Outcomes



Elaina E. Lin MD, Olivia Nelson, Kha M. Tran, Rebecca S. Isserman MD, Luv R. Javia, Nahla Khalek, Natalie E. Rintoul, Edward R. Oliver, Holly L. Hedrick
The Children's Hospital of Philadelphia, University of Pennsylvania Perelman School of Medicine, Philadelphia, PA

Introduction

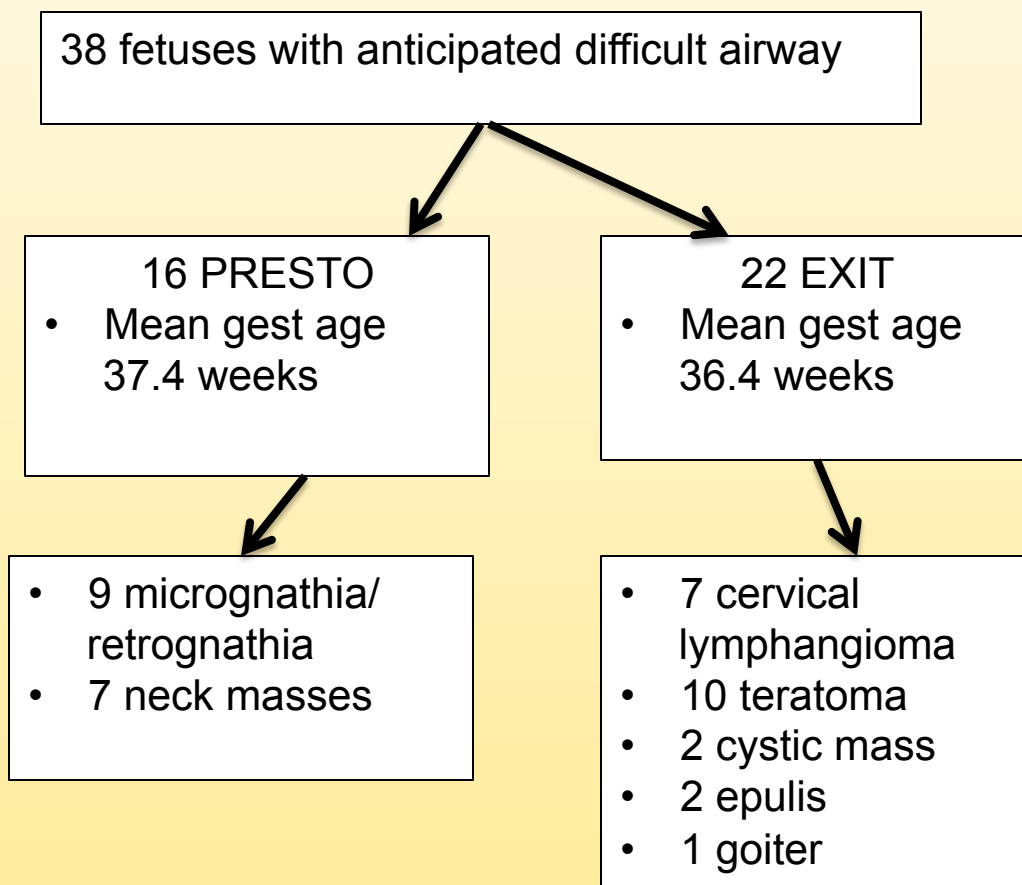
- Anticipated difficult airway can be an indication for birth by **Ex-Utero Intrapartum Therapy** (EXIT) procedure
- PRESTO (**P**rocedure **RE**quiring **S**econd **T**eam in **OR**) with a multidisciplinary team comprised of ENT, NICU, anesthesia, nursing, and RT to receive the child immediately after C-section is an alternative management of difficult airway at birth
- We present management techniques and outcomes of 38 patients at a single tertiary care center from 2009-2017.

Methods

- Retrospective chart review of fetuses with prenatal diagnosis of anticipated neonatal difficult airway from 2009-2017.

Results

Figure 1: Demographics by delivery method



Conclusion

- The potential benefit to the fetus of placental bypass during EXIT procedure must be weighed against the increased risk to mom as compared to standard C-section.
- PRESTO is an effective alternative in a subset of this population.

Figure 2: Airway Management

	PRESTO	EXIT
Number needing airway intervention	12/16	22/22
Intubation Method	6 fiberoptic thru LMA	3 mass resected before intubation
	3 rigid bronchoscopy	2 mass drained before intubation
	3 direct laryngoscopy	3 retrograde intubation
		4 tracheostomy
		2 rigid bronchoscopy
		6 direct laryngoscopy
		2 unclear from documentation
Maternal complications	0/16	1/22 (placental abruption, transfused 2 units prbc)

References

1. Laje P, et al. Ex utero intrapartum treatment (EXIT) in the management of cervical lymphatic malformation. J Pediatr Surg. 2015; 50(2): 311-4.
2. MacArthur CJ. Prenatal diagnosis of fetal cervicofacial anomalies. Curr Opin Otolaryngol Head Neck Surg. 2012; 20(6): 482-90.