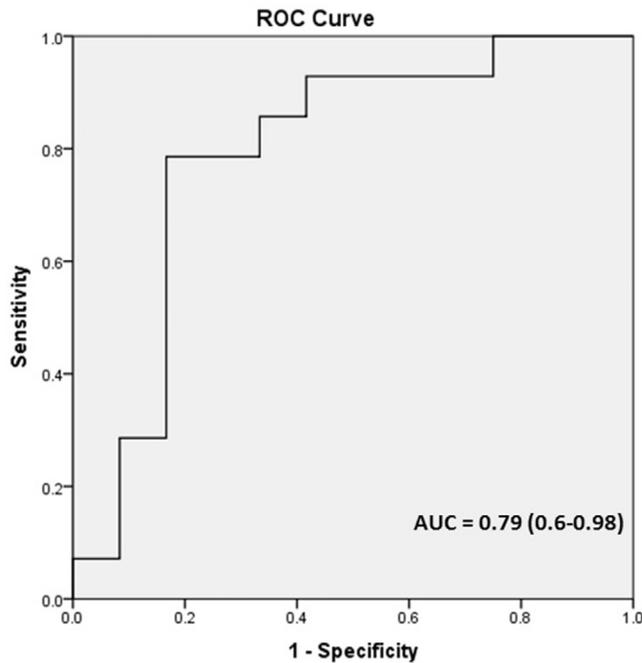


analysis identified an O/E LHR of <39% to as the best predictive cutoff for ECMO (AUC 0.79 (0.6-0.98), sensitivity 79%, specificity 83%, see Figure).



CONCLUSION: The O/E LHR expresses the relative lung size as a fixed percentage and performs better than other ultrasound parameters, including the LHR, in predicting the need for postnatal ECMO. Parents of a fetus with CDH with an O/E LHR of <39% may benefit from specialized counseling on neonatal ECMO.

217 Prenatal diagnosis of congenital diaphragmatic hernia: does laterality predict adverse perinatal outcomes?



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OBJECTIVE: To examine laterality as a predictor of adverse perinatal outcomes among fetuses with prenatally diagnosed congenital diaphragmatic hernia (CDH).

STUDY DESIGN: This is a retrospective cohort study of pregnancies with fetal CDH that were evaluated at our institution's Fetal Treatment Center from 2008 to 2016. Cases with right- versus left-sided CDH were compared. Outcomes examined included lung to head ratio (LHR), liver and stomach herniation, presence of additional anomalies, amniotic volume, hydrops, specific fetal cavity with abnormal fluid collection, intrauterine fetal demise (IUFD), gestational age (GA) at birth, birth weight, mode of delivery, use of extracorporeal membrane oxygenation (ECMO), neonatal days to discharge, and survival to discharge. Cases resulting in termination or IUFD were excluded from analyses of neonatal outcomes. Categorical variables were compared with the Fisher's exact or Chi square test as appropriate, nonparametric continuous variables were compared using Wilcoxon rank-sum, and multivariate logistic regression was used to generate adjusted odds ratios (aOR).

RESULTS: Of the 191 CDH cases identified during the study period, 157 (82%) were left-sided and 34 (18%) were right-sided. Compared

to left-sided CDH cases, those with right-sided CDH had a greater risk of liver herniation, ascites, pleural effusion, and hydrops, and demonstrated a lower median LHR (Table). In contrast, cases with left-sided CDH showed a greater risk of stomach herniation. Other perinatal outcomes did not differ by laterality (Table). For right-sided CDH, multivariate logistic regression yielded adjusted odds ratios of 3.9 (p=0.032) for liver herniation, 11.8 (p=0.001) for ascites, 9.0 (p=0.004) for pleural effusion, 14.8 (p=0.002) for hydrops, and 0.06 (p<0.001) for stomach herniation.

CONCLUSION: When compared to left-sided CDH, fetuses with right-sided CDH were more likely to have liver herniation, ascites, pleural effusion, and hydrops, and to have a lower LHR. Increased antenatal surveillance is warranted in cases of right-sided CDH to monitor for development of these outcomes.

•All continuous variables are presented as median values with ranges

Characteristics	Right-sided CDH	Left-sided CDH	p-value
LHR (range)	0.87 (0.5-3.0)	0.99 (0.3-3.0)	0.046
Liver herniation	90.6%	69.4%	0.026
Stomach herniation	12.5%	69.4%	<0.001
Polyhydramnios	31.3%	28.7%	0.769
Ascites	18.8%	1.9%	0.001
Pleuraeffusion	15.6%	1.9%	0.004
Hydrops fetalis	15.6%	1.9%	0.002
Any other anomaly	18.8%	26.8%	0.343
IUFD	3.2%	2.6%	0.999
GA at birth (weeks(range))	38.1 (29-40)	38 (30-41)	0.786
Birthweight(grams)	3200 (1300-4000)	3012 (1356-4735)	0.633
Neonatal or infant death	36%	33.6%	0.820

218 Risks of preterm premature rupture of membranes and preterm birth based on location of trocar insertion site



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OBJECTIVE: Preterm premature rupture of membranes (PPROM) and preterm birth (PTB) are known risks of invasive fetal interventions such as laser surgery for twin-twin transfusion syndrome (TTTS). The aim of this study was to assess whether the location of the trocar insertion site on the maternal abdomen was associated with PPRM and PTB. We hypothesized that the risks were higher for insertions that enter the uterus in the lower uterine segment (LUS) and in lateral entries.

STUDY DESIGN: Data were aggregated from two centers that perform percutaneous laser surgery for TTTS with identical protocols. Trocar location was prospectively documented in the operating room in centimeters (cm) vertically from the symphysis pubis and horizontally from the midline; LUS location was defined as any insertion <10 cm from the pubic symphysis on the vertical axis, and lateral location was defined as >5 cm from the midline in either direction on the horizontal axis. Patient characteristics, including trocar location (LUS y/n and Lateral y/n), were tested bivariately against 3