

outcome. This information is important in patient counseling and delivery planning. Further studies are needed on proper timing of delivery.

Comparison of TTTS pregnancy outcome variables complicated with fetal death within 7 days of SFLP

		SFD within 7 days (n=92)	SFD ≥7 days (n=19)
Quintero stage	I n(%)	9(9.8)	2(10.5)
	II n(%)	9(9.8)	1(5.3)
	III n(%)	63(68.5)	15(78.9)
	IV n(%)	11(12.0)	1(5.3)
Preterm delivery <28 weeks - n(%)		26(28)	1(5.3)**
Gestational age at delivery- weeks		30.4±4.4	32.4±2.6**
Recipient weight - grams		1506.2±866.1	1944.3±607.5**

**p<0.05

226 Small for gestational age as an independent risk factor for long-term pediatric gastrointestinal morbidity of the offspring



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OBJECTIVE: Scarce data exist regarding risk factors for neonatal long-term gastrointestinal (GI) morbidity. We aimed to evaluate the association between birthweight (BW) at term and long-term pediatric GI morbidity.

STUDY DESIGN: A population-based cohort analysis was performed, comparing the risk of long-term GI morbidity (up to the age of 18 years) in children delivered at term according to BW. The study included all term deliveries which occurred between 1991-2013 at a single regional tertiary medical center. Multiple gestations and fetuses with congenital malformations were excluded. Birth-weight was sub-divided into: small for gestational age (SGA - BW<5th centile), appropriate for gestational age (AGA - 5th centile<BW<95th centile) and large for gestational age (LGA - BW>95th centile). Hospitalizations up to the age of 18 years involving GI morbidity were evaluated. GI morbidity was evaluated using a pre-defined set of ICD-9 codes, as recorded by the hospital records. Kaplan-Meier survival curves were constructed to compare cumulative GI morbidity incidence. A Cox proportional hazards model was used to control for confounders.

RESULTS: During the study period 225,600 term singleton deliveries met the inclusion criteria. Of them, 4.6% (n=10 415) were SGA age and 4.34% (n= 9796) were LGA. During the follow-up period, 11,791 (5.2%) children were hospitalized with GI morbidity. Hospitalizations up to the age of 18 years involving GI morbidity, were significantly more common in the SGA group, as compared with the AGA and LGA groups (6.6% vs. 5.2% vs. 4.5% respectively, p<0.001 using the chi-square test for trends, selected morbidities shown in Table). Specifically, Inguinal hernia, inflammatory bowel disease (IBD), hepatitis, cholecystitis and celiac were more common in the SGA group. The Kaplan-Meier survival curve demonstrated a

significantly higher cumulative incidence of gastrointestinal morbidity in the SGA group (Figure, log rank p<0.001). Using the Cox proportional hazards model, controlling for maternal age, hypertensive disorders of pregnancy and diabetes, SGA was found as an independent risk factor for long-term GI morbidity (adjusted HR=1.23, CI 1.14-1.33, p<0.001).

CONCLUSION: SGA offspring are at an increased and independent risk for long-term pediatric GI morbidity.

Table: Selected long-term pediatric gastrointestinal morbidity according to birth-weight.

Offspring long-term gastrointestinal morbidity	SGA n=10,415	AGA n =205,389	LGA n =9,796	p value*
Total GI Hospitalization	6.6%	5.2%	4.5%	<0.001
Esophageal	0.2%	0.2%	0.2%	0.301
Gastroduodenal	0.6%	0.5%	0.6%	0.751
Appendix	0.5%	0.6%	0.6%	0.182
Inguinal hernia	2.1%	1.3%	1.1%	<0.001
IBD	2.1%	1.7%	1.3%	<0.001
Anorectal	0.2%	0.2%	0.2%	0.725
Hepatitis	0.2%	0.1%	0.1%	0.015
Surgical obstruction	0.1%	0.1%	0.1%	0.421
Cholecystitis	0.1%	0.0%	0.0%	0.009
Celiac	0.6%	0.4%	0.3%	<0.001
Hemorrhoids	0.1%	0.1%	0.1%	0.939

* Using the linear by linear association test

Figure: Kaplan-Meier survival curve demonstrating the cumulative incidence of total gastrointestinal hospitalizations in children according to birthweight (Log rank p<0.001)

