	Foley	Prostaglandin	RR (95% CI)
Cesarean section	22%	19%	1.2 (.86-1.5)
Fetal distress	7.3%	8.7%	.85 (.51-1.4)
Failure to progress	13%	8.4%	1.6 (1.0-2.4)
5 min. Apgar Score <7	.60%	2.0%	.29 (.06-1.4)
Umbilical cord pH <7.05	1.9%	5.2%	.36 (.13-.99)
Neonatal admission due to suspected infection	4.8%	6.4%	.75 (.41-1.4)
other reason	23%	27%	.83 (.64-1.1)
Neonatal sepsis	.80%	1.1%	.76 (.17-3.4)
Maternal fever (<38°C) during labor	3.1%	3.9%	.80 (.37-1.7)
Maternal infection post partum (endometritis, wound infection, UTI)	.80%	2.2%	.38 (.10-1.4)
Uterine hyperstimulation	2.0%	3.1%	.65 (.25-1.7)
Post partum hemorrhage (>1000cc)	6.0%	9.6%	.62 (.37-1.1)

6 The efficacy of early amniotomy in nulliparous labor induction: a randomized controlled trial

George Macones[1], David Stamilio[1], Roxane Rampersad[1], Alison G. Cahill[1], Anthony O. Odibo[1]
[1]Washington University in St. Louis, St. Louis, MO

OBJECTIVE: To assess whether early amniotomy (AROM at ≤ 4cm dilated) reduces the duration of labor or increases the proportion of subjects delivered within 24 hours in term nulliparous patients undergoing labor induction.

STUDY DESIGN: We performed a randomized clinical trial to test our hypothesis. Nulliparous patients with singleton, viable pregnancies undergoing labor induction at or beyond 37 weeks were eligible for inclusion. We excluded subjects with PROM, cervical dilation > 4cm at admission, or significant vaginal bleeding. Eligible subjects were randomized to early amniotomy (AROM at ≤ 4cm) or standard management (AROM at > 4cm). Outcomes for this study included duration of labor, % delivered within 24 hours, cesarean rate, maternal infectious complications, and measures of neonatal outcome. A priori sample size was based on the proportion of subjects delivered within 24 hours of randomization. Assuming alpha error of 0.05, 80% power, incidence of delivery within 24 hours of 50% in the standard management group, and a minimum detectable relative risk of 0.75, we estimated that we would need 290 subjects per group. Analysis was performed using bivariate statistics, under the intent to treat principle.

RESULTS: We randomized 585 subjects into this clinical trial, 292 into early amniotomy group and 293 into the standard management group. Baseline demographics at randomization, cervical dilation at admission, and methods of induction were similar between the groups. Early amniotomy shortened the time from randomization to delivery by over 2 hours (p=0.04) and increased the proportion of subjects delivered within 24 hours of randomization (Table). There was no effect of early amniotomy on maternal or neonatal infectious complications, or on other measures of neonatal outcome.

CONCLUSIONS: In nulliparous labor inductions, early amniotomy shortens the time to delivery by over 20 percent, and increases the likelihood of delivery within 24 hours, without adversely impacting maternal or neonatal well-being.

Outcome	Early Amniotomy	Standard Management	RR	95% CI	p
Randomization-delivery (hrs)	19.0	21.3	-	-	0.04
% delivered < 24hours from randomization	68%	56%	1.22	1.07-1.38	0.002
Cesarean	41%	40%	1.03	0.85-1.25	0.75
Chorioamnionitis	11.5%	8.5%	1.35	0.83-2.21	0.22
Postpartum fever	10.4%	9.4%	1.10	0.67-1.79	0.70

7 Stage-based outcomes of 682 consecutive cases of twin-twin transfusion syndrome treated with laser surgery: the USFetus experience

Ramen Chmait[1], Eftichia Kontopoulos[2], Lisa Korst[1], Arlyn Llanes[1], Ileana Petisco[2], Ruben Quintero[2]
[1]University of Southern California, Los Angeles, CA, [2]University of Miami, Miami, FL

OBJECTIVE: To describe Stage-specific perinatal outcomes of monochorionic multiples with twin-twin transfusion syndrome (TTTS) treated with selective laser photocoagulation of communicating vessels (SLPCV).

STUDY DESIGN: Patients with TTTS underwent SLPCV at one of two participating centers from March 2002 through March 2010. Patient characteristics and outcome data were collected prospectively and examined by Quintero Stage. A sub-analysis of Stage III patients, dividing them into those with donor affected (Stage IIID), recipient affected (Stage IIIR), or both affected (Stage IIIDR) was also conducted.

RESULTS: Of 682 women studied, the Quintero Stage distribution was: 114 Stage I (17%), 177 Stage II (26%), 328 Stage III (48%), and 63 Stage IV (9%). The mean gestational age (GA) ± SD at surgery was 20.6 ± 2.4 weeks, and 32.3 ± 4.4 weeks at delivery. Survival by Stage is described in the Table, and did not differ by participating center. Survival for Stage III fetuses differed depending on whether the donor or recipient was affected. Rates of 30-day donor survival for Stage III subcategories were: Stage IIID (60%), Stage IIIR (78%), and Stage IIIDR (53%) (p = 0.0011). Rates of 30-day recipient survival for Stage III subcategories were: Stage IIID (82%), Stage IIIR (83%), and Stage IIIDR (82%) (p=0.9605).

CONCLUSIONS: Perinatal survival for at least one fetus was approximately 90%. Survival of the recipient was independent of Stage; this is in contrast to other published studies where recipient survival in Stage III/IV has been as low as 12.5%. Survival of the donor, and thus dual survival, appeared to differ only for Stage III. Dual survival in Stage I was 78%. These numbers may be used for patient counseling as well as benchmarks for comparison of surgical results among centers.

Outcome	All Patients	Stage I	Stage II	Stage III	Stage IV	p-value
Donor 30-day survival	74%	81%	83%	65%	82%	< 0.0001
Recipient 30-day survival	84%	89%	86%	82%	79%	0.2146
At least 1 30-day survival	91%	93%	93%	88%	92%	0.2768
Dual 30-day survival	67%	78%	76%	59%	69%	< 0.0001