

Cerclage in twin pregnancies compared with singleton pregnancies

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Objective

The aim of this study was to compare pregnancy outcomes of physical examination-indicated cerclage in twin and singleton pregnancies with bulging membranes.

Methods

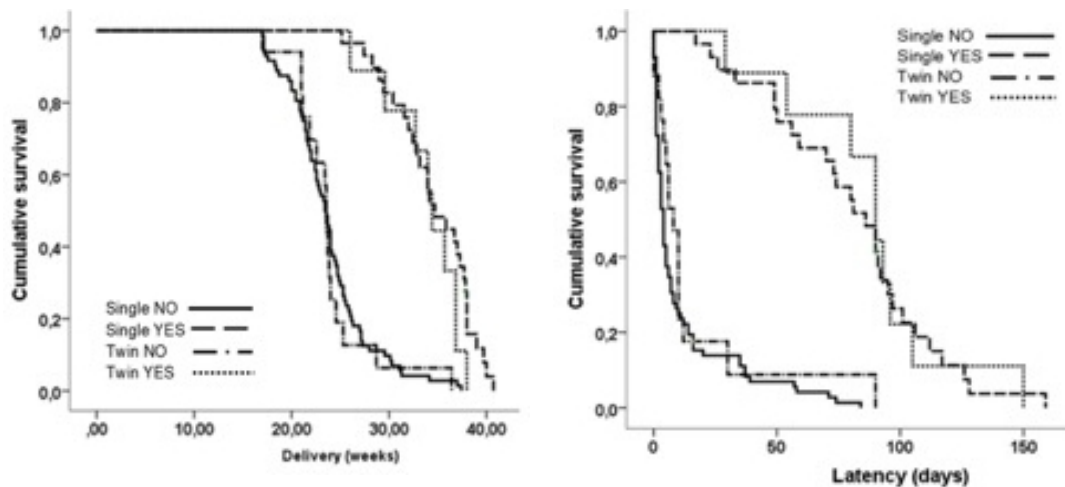
All women with bulging membranes in the second trimester of pregnancy who were admitted to La Fe University and Polytechnic Hospital from January 2009 to January 2022 were included. A total of 128 participants were enrolled, 102 singleton pregnancies and 26 twin pregnancies. All patients underwent an amniocentesis to rule out intra-amniotic inflammation (IL-6 <2.6 ng/ml). Cerclage was placed in the absence of intra-amniotic inflammation.

Results

Compared with singleton gestations, twin pregnancies displayed a significantly higher prevalence of nulliparity and assisted reproductive techniques. The incidence of intra-amniotic inflammation/infection was similar in both groups (68.62% in singleton vs. 65.38% in twin pregnancies). The average gestational age of delivery without cerclage in singleton gestations was 23.83 weeks (95% CI 22.82-24.84) and in twin pregnancies 23.69 weeks (95% CI 21.8- 25.57). The average gestational age at delivery among patients with cerclage was 37.27 weeks (95% CI 35.35-39.19) in singleton gestations and 36 weeks (95% CI 33.51-38.63) in twin pregnancies, with no significant differences. Time from diagnosis to delivery in patients with IL-6 <2,6 ng/ml was 79,88 days, and in those with IL>2,6 ng/ml was 10,87 days. Gestational age at delivery was significantly higher in both singleton and twin pregnancies with cerclage, compared with those without cerclage (log-rank p<0.001).

Conclusion

Singleton and twin pregnancies with bulging membranes behave similarly when cerclage is placed in the absence of intraamniotic inflammation/infection.



	Singleton pregnancies n: 102	Twin pregnancies n: 26	p
Average Age (years)	33	34	NS
History of preterm labor/ late abortion	27 (26,47%)	3 (13%)	NS
Assisted reproductive techniques	12 (13,33%)	13 (50%)	<0,001
Nuliparity	72 (70,6%)	24 (92,3%)	< 0,05
GA at diagnosis (weeks)	22+3	21+4	NS
Physical examination-indicated cerclage	30 (29,41%)	9 (34,62%)	NS
Time from diagnosis until delivery after cerclage (days)	80	87	NS
Preterm birth < 34 weeks	83 (81,3%)	18 (69,2%)	NS
Perinatal death	48 (47%)	26 (50%)	NS

	Singleton pregnancies 102	Twin pregnancies 26	p
Amniotic IL6	3,64	6,64	NS
IL-6> 2,6 ng/mL	70 (68,62%)	17 (65,38%)	NS
Glucose	31,3	26,7	NS
Leucocytes	378, 14	192,48	NS
DLA	585,63	446,85	NS
Procalcitonine	0,046	0,056	NS
Positive leukocyte esterase	26,58% (21/58)	30% (6/14)	NS
Positive culture	28 (27,45%)	8 (30,76%)	NS

	IL-6 < 2,6 ng/ml (n=41)	IL-6 > 2,6 ng/ml and positive culture (n=33)	p
Gestational age at delivery (weeks ± standard deviation)	34,32 (± 4,24)	23,54 (± 3,84)	P < 0,01
Interval from diagnosis to delivery (days ± standard deviation)	79,88 (± 34,87)	10,87 (± 17,26)	P < 0,01
Birth < 34 weeks (n)	19	82	P < 0,01
Perinatal death (n)	0	58	P < 0,01
Newborn's weight (median in grams ± standard deviation)	2241,45 (± 844,10)	962,30 (± 40,83)	P < 0,01