Subsequent pregnancy after extreme preterm birth: a single centre audit

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BACKGROUND

Preterm birth (PTB) is the leading cause of perinatal and neonatal morbidity and mortality worldwide and makes up approximately 10% of all births. Extremely preterm infants (<28 weeks gestation) remain at very high risk of death and disability despite recent technological advances and efforts of neonatologists.[1]

AIMS

This aim of this study was to audit the management and outcomes of the next birth after an extreme PTB in a single tertiary hospital.

METHODS

This was a retrospective cohort study of women who had a PTB <28 weeks followed by a subsequent birth within a ten-year period from January 2007 to December 2016 at a tertiary care centre in Victoria.

RESULTS

We studied 134 women with a spontaneous extreme PTB followed by another birth, of whom 41 (30.6%) had a PTB <37 weeks and 13 (9.0%) had another extreme PTB <28 weeks. Among 24 women that had **prophylactic cerclage or progesterone** there was no recurrent <28 week PTB. Three out of 18 women (16.7%) that had **ultrasound-indicated intervention** had an extreme PTB, and two out of 24 patients (8.3%) that had **cervical surveillance without intervention** had an extreme PTB. Among 68 women **without any documented surveillance or intervention**, seven (10.3%) had a recurrent extreme PTB. Prophylactic treatment reduced PTB <37 weeks (RR 0.45, 95% CI 0.18 to 1.2), and no PTB <28 weeks occurred in this group. These differences were not statistically significant.

	PTB <28/40	PTB 29-34/40	PTB 35-37/40	Term birth	Total
No surveillance or intervention	7	4	10	47	**68**
Surveillance without intervention	2	2	3	17	**24**
Ultrasound-indicated intervention	3	2	4	9	**18**
Prophylactic intervention	0	0	4	20	**24**
Total	**12**	**8**	**21**	**93**	**134**

DISCUSSION

Currently, our hospital does not have a guideline for prediction and prevention of preterm birth. RANZCOG guidelines suggest "individually considered mid-trimester cervical surveillance and risk-reduction strategies instituted from early pregnancy".[2] The NICE guidelines recommend offering progesterone or cerclage to women with a history of PTB <34 weeks and cervical length <25mm.[3]This audit among women with previous extreme PTB shows that our institution would benefit from a prevention of preterm birth guideline to standardise management and suggests that prophylactic intervention may reduce the risk of recurrent preterm birth in this group of high risk women.

REFERENCES

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