Objectives: To describe a tertiary referral center’s experience with selective reduction in pre-viable premature rupture of membranes of one sac in dichorionic twins and compare outcomes with expectant management and with already published cases.

Methods: This is a retrospective case series. The ultrasound database was used to identify twin pregnancies with preterm premature rupture of membranes occurring before 24+0 weeks’ gestation. Hospital and clinic charts were reviewed for management and outcome data. Descriptive statistics, Fisher exact t test and chi-square were used as appropriate.

Results: Twenty-nine cases were identified from 2004 to 2016. Two charts with expectant management were incomplete. Twenty-seven cases were included; 22 managed expectantly (including 3 where a selective reduction was desired but not feasible) and 5 managed by selective reduction of the fetus in the ruptured sac. Table 1 summarizes the results in our case series. Twelve cases of selective reduction were identified in the literature, reporting a gestational age at rupture of membranes between 13 and 20 weeks (average 17.2 +/- 2.1 weeks) resulting in deliveries at 35.2 +/- 5.5 weeks (latency of 18 +/- 5.4 weeks).

Conclusion: In dichorionic twin pregnancies with preterm premature rupture of membranes of one sac before 24 weeks’ gestation, management with selective reduction may be associated with increased latency. This might be particularly relevant in the earlier gestational age population. Further studies are required to confirm this finding and assess the impact on neonatal morbidity.