

Latency from premature preterm rupture of membranes to delivery and correlation with gestational age

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Objective. To evaluate the average latency from preterm premature rupture of membranes (pPROM) to delivery, and its correlation with the gestational age (GA) at pPROM.

Materials and methods. A retrospective study was performed on pregnancies complicated by pPROM from January 2018 to December 2021 at Careggi Hospital (Florence). GA at pPROM and at delivery were recorded and latency to delivery was calculated, after excluding patients carrying a pessary or cerclage, and cases of major fetal malformation. Patients were then divided into five groups according to gestational age at pPROM (< 24, 24 to 28, 28 to 32, 32 to 34, and 34 to 37 weeks). Descriptive and correlation analyses were performed.

Results. The incidence of pPROM during the study period was 2% (275/12,702 births). After applying the exclusion criteria, we selected a cohort of 237 pregnancies. Overall, the median GA at pPROM was 35.7 weeks (IQR 32.6, 36.4) and the median latency to delivery was 1 day, as pPROM occurred after 34 weeks in most patients (71%). **Table 1** reports data on latency and GA at delivery, after dividing groups of different gesta-

tional age at pPROM. Below 32 weeks of gestation, there was a significant inverse correlation between the GA at pPROM and the latency to delivery (Spearman's rho -0.45, p = 0.001).

Conclusions. Latency varies depending on the GA at pPROM: below 32 weeks of gestation, the earlier the pPROM occurs, the longer is the latency to delivery. These data may be useful for patients' counselling.

Table 1.

Gestational age at pPROM	n	GA at delivery	Latency to delivery (days)	Delivery within 48h from pPROM	Delivery within 7 days	Placental abruption
All	237	35.9 (33.6, 36.4)	1 (0, 3)	174 (73%)	197 (83%)	2 (0.8%)
<24	11	26.8 (±1.8)	30.8 (±11.2)	0	0	0
24 ^{wo} -27 ^{wo}	29	28.4(±1.8)	15.5 (±13.1)	4 (13.8%)	11 (37.9%)	0
28 ^{wo} -31 ^{wo}	13	31.8 (±1.8)	13.8 (±10.5)	2 (15.4%)	5 (38.5%)	0
32 ^{wo} -33 ^{wo}	16	33.4 (±0.6)	2 (0.3, 5.0)	9 (56.3%)	13 (81.3%)	2 (12%)
34 ^{wo} -36 ^{wo}	168	36.3 (35.7, 36.5)	1.0 (0, 1)	159 (94.6%)	168 (100%)	0