Application of the perfusion index in obstetric bleeding.

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OBJECTIVE: We assessed the utility of the pulse oximeter perfusion index (PI) in maternal monitoring immediately after delivery.

METHODS: We examined 30 pregnant women without any complications using the Rad7 device at delivery. The correlations between heart rate (HR), systolic blood pressure (BP), oxygen saturation SpO2, PI, Pleth variability index (PVI), shock index and blood loss were assessed.

RESULTS: Blood loss at 20-min postpartum was not correlated with the difference in heart rate, systolic BP, SpO2, shock index or PVI taken immediately after delivery and at 20-min postpartum, but showed a strong negative correlation with the difference in the PI taken immediately after delivery and at 20-min postpartum (r = -0.70).

CONCLUSION: PI changes were correlated with post-delivery blood loss and can be used for maternal monitoring at delivery.