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Sudden cardiorespiratory
arrest of neonates in the
delivery room

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A 30-year-old woman delivered a 3400 g female infant at term. The mother had been treated with antidepressants before this pregnancy, but was otherwise in good health. The pregnancy was harmonious and without complications. The neonate was delivered by vacuum extraction for a suspect CTG and second stage delay. Umbilical arterial and venous pH were 7.17 and 7.22. Adaptation was excellent with an Apgar score of 9, 10 and 10 at 1, 5 and 10 minutes of life, respectively. After an initial clinical examination, the baby was brought to the mother for breast feeding. At 40 minutes of life, she became pale while still in prone position with her face buried in the breast of her mother (Fig. 1). The father alerted the midwife, who called at once for the on-call pediatrician. On the resuscitation table, the infant was pale without any respiratory effort and no heart sounds were heard. Bag mask ventilation and chest compressions were initiated without delay. 30 seconds later, heart sounds became audible again and there was some return of respiratory effort. This was followed by progressive improvement of muscle tone and color. A blood gas analysis showed severe mixed acidosis (pH 6.97, BE -16 mmol/l). The newborn was transferred to the neonatal unit for observation over the next 48 hours. The child is now 10 months old. She is healthy and developing normally.

DISCUSSION

Despite uncomplicated postnatal adaptation and without any risk factors, our patient suddenly went into cardiorespiratory arrest while lying in prone position at her mothers breast. In the literature, there are additional and even more dramatic case reports (1-3) of several neonates with sudden cardiorespiratory arrest in the delivery room. Seven babies without any risk factors and with undisturbed postnatal adaptation died while sleeping in a prone position on their mothers' chest. These case reports illustrate that even following uncomplicated delivery and initial postnatal adaptation, babies are still at risk to develop severe cardiorespiratory compromise. In our patient, insufficient vigilance during the first breast feeding lead to suffocation when the baby's face was pressed against the breast of the mother. As a consequence, babies should be observed closely, particularly when in a prone position at the mother's breast.

Several articles have been published about the risks of the prone sleeping (3-6). But neither teaching program in the formation of midwives in Switzerland, nor official protocols for the supervision of neonates in delivery rooms exists. We suggest that the importance of a meticulous supervision of all babies after birth should be pointed out to all student midwives.



Fig. 1

*Picture taken by the father in the delivery room:
neonate in cardiorespiratory arrest while in a prone
position at her mother's breast.*

CONCLUSIONS

Care and supervision of babies is necessary not only during delivery and the first 10 minutes of life, but also later on, especially during the first breast feedings when the baby is lying in a prone position.

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