



Assessment of anesthesia-related maternal deaths in Turkey: a population based study

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Objective

Anesthesia-related complications, especially secondary to difficult or failed tracheal intubation can result in severe outcomes, including the death of the mother and the baby. Endotracheal intubation mostly occurred in emergency cesarean sections during which a detailed preoperative assessment is impossible due to the nature of emergency.

Methods

Case files of maternal deaths between years 2012-2014 were reviewed by the Preliminary Investigation Committee for Maternal Deaths. The deaths related to anesthetic complications were evaluated. The age, parity, gestational age, risk factors, delivery route, delivery outcome and cause of death were recorded and any existing delay and preventability of maternal death were assessed.

Results

There were 4 anesthesia-related maternal deaths between 2012-2014. All of the deaths were associated with difficult or failed tracheal intubation. The mean age of the cases was 29, 5±8, 3 years. Only 1 woman was nulliparous, the other 3 were multiparous and had cesarean sections in their previous deliveries. The gestational age was greater than 37 weeks in all of the cases and all of them resulted in live births. The risk factors were scoliosis in 2 women, chronic pulmonary obstructive disease and congenital hip dislocation in 1 woman. The last case had no risk factor. Three of the cesarean sections were emergency procedures. One woman with scoliosis had a Mallampati score of 4 which shows difficult intubation. While there was no delay in 3 women, phase 3 delay was found in one case. According to the results of delays, only 1 maternal death was identified as preventable.

Conclusion

Difficulty in airway management occurs more often in obstetric patients due to the anatomical and physiological changes of pregnancy. In order to reduce the anesthesia-related mortality secondary to difficult airway, preoperative airway assessment and prediction of difficult airway is important as this will highlight the need for specific equipments and experienced anesthetist. Regional anesthesia techniques should be the first choice of anaesthesia in cesarean sections.