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Peripartum Hysterectomy in the United States: Nationwide 14-Year Experience

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Objective: Peripartum hysterectomy is associated with substantial maternal morbidity(1). The purpose of this study is to examine trends in the rate of peripartum hysterectomy in the United States (US) and the contribution of changes in maternal characteristics to these trends.

Methods: We performed a cross-sectional study of peripartum hysterectomy identified from hospitalizations for delivery recorded in the 1994-2007 Nationwide Inpatient Sample (NIS) of the Healthcare Cost and Utilization Project. The NIS is an administrative dataset that contains information regarding approximately 20% of all US hospitalizations. Logistic regression was used to examine trends and the contribution of changes in maternal and obstetric characteristics to these trends.

Results: The rate of peripartum hysterectomy increased by 15% from 1994-1995 to 2006-2007 (from 71.6 to 82.6 per 100,000 deliveries, p<.001). Rates of hysterectomy for abnormal placentation increased during the study period by 23% (from 32.9 to 40.5 per 100,000; p for linear trend<.001; odds-ratio [OR] 1.23; 95% CI 1.07 - 1.43, p<.001); adjustment for previous Cesarean delivery explained nearly all of this increase. The rate of hysterectomy for uterine atony following repeat Cesarean delivery increased nearly 4-fold (from 1.9 to 7.5 per 100,000; OR 3.94; 95% CI 2.62 - 5.91, p<.001), following primary Cesarean delivery approximately 2.5-fold (from 4.4 to 11.2 per 100,000; OR=2.55; 95% CIs=1.85 - 3.52, p<.001), and following vaginal delivery about 1.5-fold (from 4.9 to 7.1 per 100,000; OR=1.45; 95% CIs=1.07 - 1.97, p<.001). Adjustment for changes in the rates of recognized risk factors explained little of the increase in the rates of peripartum hysterectomy due to atony.

Conclusions: Rates of peripartum hysterectomy increased in the US from 1994-1995 to 2006-2007. The increase in hysterectomy from abnormal placentation was explained by the increasing rate of repeat Cesarean delivery. Increases in the rates of hysterectomy for uterine atony were unexplained and further study to elucidate the basis for this trend is merited.