

Erratum to: Abdominal versus laparoscopic hysterectomies for benign diseases: evaluation of morbidity and mortality among 465,798 cases

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On page 117, the “Abstract” should read:

Hysterectomy is the most common major gynecological surgery performed in women. The aim of this study was to compare major morbidity and mortality between abdominal hysterectomy (AH) and laparoscopic hysterectomy (LH) for benign diseases. We performed a retrospective cohort study using the data from Health Cost and Utilization Project Nationwide Inpatient Sample. Women were admitted for hysterectomy for benign diseases between the years 2002 and 2008. In-hospital morbidities and mortalities were identified using the diagnostic and procedural codes classified according to the International Classification of Disease, Ninth Revision, and Clinical Modification. Logistic regression analysis was used to estimate the relationship between the type of hysterectomy and the development of major morbidity and mortality. Of a total 465,798 cases, 389,189 women (83.6 %) underwent AH and the remainders underwent LH (76,609,16.4 %). The LH group was younger and more likely to be Caucasian than those who underwent AH. *Although major morbidities and*

mortalities were rare, women who underwent LH were less likely to develop thromboembolic events (0.69 % vs. 0.84 %, odds ratio (OR) 0.85 (0.77–0.93)), require blood transfusions (2.4 % vs. 4.7 %, OR 0.58 (0.55–0.61)), and sustain bowel perforation (0.07 % vs. 0.13 %, OR 0.56 (0.42–0.74)). The mortality rate was also lower in the LH group (0.01 %) compared with the AH group (0.03 %, OR 0.48 (0.24–0.95)). Our conclusion was that for benign diseases, laparoscopic hysterectomy is associated with a lower complication rate than abdominal hysterectomy. When possible, hysterectomy performed for benign diseases should be performed with minimally invasive technique.

On page 119, the last paragraph of the result section should read:

The mode of hysterectomy and the risks of major mortality and morbidity rates are listed in Table 2. Overall, the rates of complications were very low. *Even so, the patients who underwent LH had lower morbidity (deep vein thrombosis, pulmonary embolism, and requirement for blood transfusion) as well as less mortality compared to women in the AH group. (The last line was removed).*

Table 1 and 2 should read

The online version of the original article can be found at <http://dx.doi.org/10.1007/s10397-013-0781-9>.

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Table 1 Baseline characteristics of 465,798 patients who underwent laparoscopic vs. abdominal hysterectomies for benign disease

characteristic	Open TAH (n = 389,189)	Laparoscopy (n = 76,609)
<i>Age</i>		
<35	29,792 (8 %)	8,107 (11 %)
35–39	56,658 (15 %)	12,295 (16 %)
40–44	106,817 (27 %)	19,256 (25 %)
45–49	110,282 (28 %)	20,301 (27 %)
≥50	85,399 (22 %)	16,606 (22 %)
<i>Race</i>		
Caucasian	170,001 (44 %)	43,174 (56 %)
African-American	62,291 (16 %)	5,963 (8 %)
Hispanic	31,295 (8 %)	4,569 (6 %)
Other	17,100 (4 %)	2,627 (3 %)
Unknown	108,492 (28 %)	20,276 (26 %)
<i>Median income (US\$)</i>		
<35,000	95,202 (24 %)	15,921 (21 %)
35,000–44,999	97,967 (25 %)	19,278 (25 %)
≥45,000	187,998 (48 %)	39,707 (52 %)
<i>Insurance type</i>		
Medicare	21,399 (6 %)	3,668 (5 %)
Medicaid	34,267 (9 %)	5,207 (7 %)
Private	304,072 (78 %)	63,140 (82 %)
Other	28,726 (7 %)	4,456 (6 %)
<i>Hospital</i>		
Rural	50,239 (13 %)	10,455 (14 %)
Urban, non-teaching	177,299 (46 %)	36,546 (48 %)
Urban, teaching	161,324 (41 %)	29,570 (39 %)
<i>Admission</i>		
Elective	338,668 (87 %)	68,361 (89 %)
Non-elective	48,453 (12 %)	7,898 (10 %)
<i>Comorbidities^a</i>		
Congestive heart failure	1,539 (0.4 %)	125 (0.2 %)
Chronic pulmonary disease	26,585 (7 %)	5,100 (7 %)
Diabetes (complicated or uncomplicated)	21,998 (6 %)	3,159 (4 %)
Hypertension (complicated or uncomplicated)	79,065 (20 %)	12,028 (16 %)
Lymphoma	265 (0.07 %)	40 (0.05 %)
Peripheral vascular disorder	499 (0.1 %)	68 (0.09 %)

^aMissing comorbidity data in 5,324 records

Table 2 Effect of hysterectomy approach on the risk of major morbidities and mortality

Outcome	Abdominal hysterectomy	Laparoscopic hysterectomy	Adjusted OR (95 % CI)	P value
DVT	2,879 (0.74 %)	502 (0.66 %)	0.91(0.82, 0.99)	0.04
PE	3,099 (0.80 %)	522 (0.68 %)	0.88(0.80, 0.96)	0.006
DVT or PE	3,281 (0.84 %)	529 (0.69 %)	0.85(0.77, 0.93)	0.0004
Blood transfusion	18,124 (4.7 %)	1,805 (2.4 %)	0.58(0.55, 0.61)	<0.0001
Bowel perforation	490 (0.13 %)	52 (0.07 %)	0.56 (0.42, 0.74)	<0.0001
Bladder injury	17 (<0.01 %)	0 (0 %)	N/A	N/A
Acute myocardial infarction	133 (0.03 %)	13 (0.02 %)	0.69(0.39, 1.2)	0.2
Length of stay \geq 6 days	15,917 (4.1 %)	804 (1.1 %)	0.29 (0.27,0.31)	<0.0001
Death	123 (0.03 %)	9 (0.01 %)	0.48(0.24, 0.95)	0.036

DVT deep vein thrombosis, PE pulmonary embolism, MI myocardial infarction