

358 Does pregnancy increase the risk of abdominal hernia recurrence after pre-pregnancy surgical repair?

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OBJECTIVE: By increasing intraabdominal pressure, pregnancy may increase the risk of abdominal hernia recurrence. Current data are limited to studies with small sample size and thus the impact of pregnancy on recurrence is unclear. The objective of this analysis is to evaluate the impact of pregnancy on abdominal hernia recurrence in a large cohort.

STUDY DESIGN: A multi-institution de-identified electronic health record database, Explorys® (Cleveland, OH, USA), was utilized to perform a retrospective cohort study of women ages 18-45 with a history of an abdominal hernia repair from 1999-2013. Abdominal hernia was defined to include ventral and incisional hernias and all other types were excluded. The presence or absence of a term pregnancy following primary hernia repair was elucidated from the database. Subjects were excluded if a hernia repair occurred during pregnancy. The rate of hernia recurrence, defined as reoperation, was calculated. The association between pregnancy and hernia recurrence was evaluated with logistic regression, both unadjusted and adjusted for diabetes, obesity (BMI>30), and wound dehiscence at the time of initial hernia repair.

RESULTS: 15,825 women with a history of hernia repair were identified of whom 1,375 had a subsequent pregnancy. Overall, 1,240 women in the cohort had a hernia recurrence (7.8%). In unadjusted analysis, pregnancy was associated with an increase in the risk of hernia recurrence (16.1% vs 8.1%, OR 2.20, 95% CI 1.87-2.58). All risk factors were more common in women experiencing a hernia recurrence (Table). The association between pregnancy and hernia recurrence persisted after adjusting for BMI>30, diabetes and wound dehiscence at time of initial hernia repair (aOR 2.07, 95% CI 1.76-2.44).

CONCLUSION: Pregnancy is associated with an increased risk of hernia recurrence after adjusting for confounding factors. Desire for pregnancy should be considered in planning elective hernia repair for asymptomatic women.

Table: Univariate analysis of risk factors for hernia recurrence

Clinical Factor	Hernia Recurrence N=1,240	No Hernia Recurrence N=14,585	OR [95% CI]
Pregnancy	200 (16.1)	1175 (8.1)	2.20 [1.87-2.58]
BMI > 30	565 (45.6)	5,045 (34.6)	1.58 [1.41-1.78]
Diabetes	375 (30.2)	2,960 (20.2)	1.70 [1.50-1.94]
Wound dehiscence	135 (10.9)	650 (4.5)	2.62 [2.16-3.19]

359 Does thyroxine treatment improve emotional well being among women with subclinical hypothyroidism?

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OBJECTIVE: To determine whether treatment of subclinical hypothyroidism (SCH) during pregnancy improves maternal emotional well-being.

STUDY DESIGN: This is an ancillary study to a multicenter randomized trial of thyroxine therapy for hypothyroid disorders in pregnancy. Women with singleton non-anomalous gestations diagnosed with SCH were randomized to thyroxine therapy or placebo. Women with overt thyroid disease, diabetes, autoimmune disease were excluded. For this ancillary study, women with depression or those receiving anti-depressants were excluded. Subjects were assessed for depressive

symptoms/emotional well-being using the center for epidemiological studies-depression (CES-D) scale prior to starting the study drug, in the third trimester between 34-38 weeks, and at one-year postpartum. CES-D scales were not scored until the completion of the primary trial. A score ≥ 16 is considered screen positive for depression.

RESULTS: 245 women with SCH were included in this ancillary trial and were allocated to thyroxine (n=124) or placebo (n=121). Median CES-D scores and the proportion of subjects with positive scores were similar at baseline between the two groups (Table). Treatment with thyroxine was not associated with improvement in median CES-D scores or in odds of having a screen-positive in the third trimester compared with placebo, even after adjusting for baseline scores (aOR 0.63, 95% CI 0.31-1.28, p=0.20). At one-year postpartum, the frequency of screen-positive CES-D scores was higher in the placebo group, but the difference did not reach significance. However, after adjustment for baseline and third trimester CES-D scores, antenatal treatment with thyroxine was associated with lower odds of having a screen-positive score (aOR 0.32, 95% CI 0.1-0.85, P=0.02).

CONCLUSION: In this cohort of pregnant women with SCH, antenatal thyroxine treatment was not associated with improved emotional well-being during pregnancy, but may reduce the odds of screening positive for depression at one year postpartum.

	Median [interquartile range] scores and number (rates) of screen positive CES-D					
	Thyroxine	Placebo	P-value	Thyroxine	Placebo	P-value
Baseline	10 [5-16]	9 [4-15]	0.31	32 (26%)	28 (23.1%)	0.6
Third trimester	10 [5-15]	10 [5-17]	0.46	26 (24.3%)	31 (30.1%)	0.34
One-year postpartum	6 [3-12]	6 [3-13]	0.87	12 (10.9%)	21 (19.3%)	0.08

360 A multi-state analysis of the trends in psychiatric disease and substance use in pregnancy

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OBJECTIVE: The objective of this study was to determine if the incidence of these psychiatric diseases and substance use in pregnancy has changed over time and its impacts on intrapartum care, delivery outcomes, and postpartum readmissions.

STUDY DESIGN: This study is a retrospective cohort study of patients identified using the State Inpatient Databases from California, Florida, and New York between 2004-2011. ICD-9 codes for psychiatric disease and substance abuse were used to identify patients affected by these diseases. Maternal comorbidities, delivery mode and complications, and postpartum readmissions were compared using chi-squared tests.

RESULTS: Nearly one million deliveries a year were identified, and 600,000 per year met all inclusion criteria for analysis. The overall incidence of psychiatric disease in pregnancy was 29.7/1000 deliveries, which included depressive disorders (17.1/1000 deliveries). The rate of substance use was 17.0/1000 deliveries. Over time, the incidence of psychiatric disease increased (all psychiatric conditions 1.92% to 4.22%, depressive disorder 1.17% to 2.35%), as did substance use (1.44% to 2.08%). Patients affected by these diseases were more likely to be white, be publically insured, be in the lowest quartiles of income, and have more maternal comorbidities affecting pregnancies (obesity, hypertension, diabetes, asthma, thyroid disease, and seizure disorders). The most common substance used in