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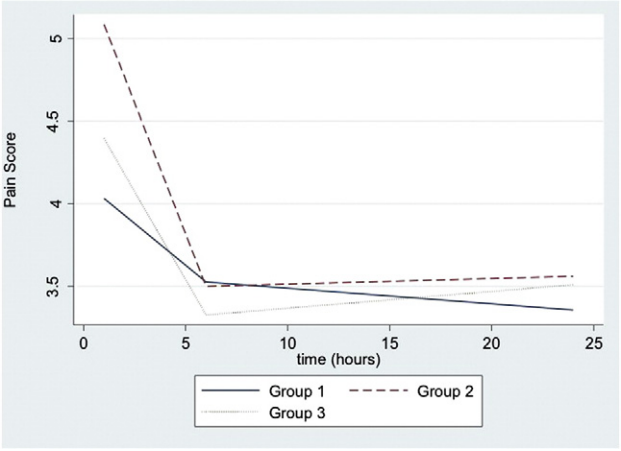
Comparison of preemptive transversus abdominis plane block versus local injection of analgesic for postoperative pain control in minimally invasive gynecologic surgery

E.C. Liberman[a], T.R. Denehy[b], J.R. Schortz[c], A.R. Van Arsdale[a]. [a]*Albert Einstein College of Medicine/Montefiore Medical Center, Bronx, NY, USA,* [b]*Gynecologic Cancer and Pelvic Surgery, West Orange, NJ, USA,* [c]*Saint Barnabas Medical Center, Livingston, NJ*

Objectives: The purpose of this study was to determine if patients undergoing minimally invasive gynecologic surgery would benefit from preemptive analgesics.
Methods: This was an institutional review board-approved, double-blind, randomized study. The 183 subjects were randomly allocated to the following: 1) placebo local injection, treatment transversus abdominis plane block (TAP), 2) treatment local injection, placebo TAP, or 3) treatment local injection, treatment TAP. The primary outcome measurement was pain, recorded using a visual analog scale (0–10) at 1, 6, and 24 h after arriving in postoperative care unit. Secondary measurements were time until first request for pain medication and narcotic usage. Demographics, pain scores, and related measures were described using means and standard deviation for continuous variables or medians and interquartile ranges for non-normal distributions. A Kruskal Wallis test with pairwise comparisons and Dunn adjustment was performed to compare differences in pain scores between treatment arms at each time point. Time to first request was summarized using Kaplan–Meier survival curves and differences by treatment arm was assessed using the log rank test. A mixed methods model (both fixed and random effects) was fit to account for intrasubject correlation and pain scores over time.
Results: Analysis using median pain scores showed a statically significant difference at 1 h postoperatively. Specifically, pain in the treatment local, placebo TAP arm was twice that of the placebo local, treatment TAP arm ($P = 0.03$). There was no difference in time to first request for pain medications among the different arms based on log rank test ($P = 0.60$). In mixed modeling, the random intercept model for reported pain scores showed that increasing time from surgery was significantly associated with decreasing pain scores (-0.032, $P < 0.001$) and that increasing morphine requirements was associated with increased pain scores (0.09, $P < 0.001$). There was no significant difference in mean pain scores between treatment arms ($P = 0.61$) adjusting for age, body mass index, surgical time, or morphine usage. The addition of a random slope model did not provide better fit ($P = 0.28$).
Conclusions: We should explore earlier time points immediately after surgery because pain scores are improved, and a more complex mixed model may demonstrate a statistical significance.



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Laparoscopic comprehensive therapeutic pelvic to infrarenal lymphadenectomy

K.A. O'Hanlan[a], M. Chivukula[b], M.S. Sten[a], N.N. Ford[a], S.P. McCutcheon[a]. [a]*Laparoscopic Institute for Gynecology and Oncology, Portola Valley, CA, USA,* [b]*Sequoia Hospital, Redwood City, CA, USA*

Objectives: To review safety, feasibility, and surgicopathologic outcomes of laparoscopic pelvic-to-infrarenal lymphadenectomies and compare transperitoneal and retroperitoneal approaches.
Methods: An institutional review board-approved retrospective chart review of 109 consecutive cases with laparoscopic comprehensive lymphadenectomy from the deep circumflex iliac vein to the common iliac bifurcation (pelvic) to the inferior mesenteric artery (IM) and to the renal veins (IR). All but eight also had hysterectomy/bilateral salpingo-oophorectomy. Seventy-two had clinical stage I/II endometrial carcinoma, 33 had clinically early peritoneal/tubal/ovarian carcinoma, and 4 had stage I–II cervical carcinoma. Thirty-three patients had the transperitoneal approach, and 76 patients had the retroperitoneal approach. Statistical analysis was performed using linear regression analysis with derivation of scatter plots and calculation of *P* value using Q1Macros and R software.
Results: No difference was observed by approach for mean age of 57 years (range, 31–80 years), body mass index (BMI) of 26 (range, 18–43), surgical duration of 226 min (range, 195–406 min), blood loss of 222 mL (range, 25–1500 mL), hospital stay of 1 day (range, 1–6), or nodal yield (pelvic 22 [range, 3–41], IM 12 [range, 1–38], IR 13 [range, 1–37]). Metastases were found in 23% of pelvic, 20% of IM, and 17% of IR basins, significantly affecting 32% of patients' therapeutic plans. Ten percent had positive IM/IR nodes with negative pelvic nodes. The likelihood of finding lymph node metastases increased with the number of nodes removed. The transperitoneal route showed a significant increase in yield with increasing surgeon experience and significant decrease in node yields with increasing patient BMI. The retroperitoneal approach showed no learning curve, and node yields remained high with a BMI up to 43. Complications with the transperitoneal approach were as follows: one failure to complete and one obturator neurotmesis with laparoscopic repair. Retroperitoneal approach complications were as follows: two failures to complete and one transection of left renal artery repaired with laparotomy.
Conclusions: Comprehensive laparoscopic pelvic-to-infrarenal lymphadenectomy is safe and feasible and may affect treatment decisions in one third of patients. The retroperitoneal approach permits more direct access to a higher level of nodes and may avoid the anatomic obstacles that exist with a transperitoneal approach to lymphadenectomy, especially in high-BMI patients.

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Minimally invasive surgery versus laparotomy for interval cytoreduction after neoadjuvant chemotherapy for ovarian cancer

K. Mori[a], C.H. Hoppenot[a], I. Helenowski[a], E. Berry[b], J.R. Lurain III[a], N.L. Neubauer[a]. [a]*Northwestern University Feinberg School of Medicine, Chicago, IL, USA,* [b]*Prentice Women's Hospital, Chicago, IL, USA*

Objectives: To evaluate perioperative and disease-related outcomes with respect to route of interval cytoreduction following neoadjuvant chemotherapy for advanced ovarian cancer.
Methods: Women with biopsy-proven and image-documented stage III–IV ovarian, fallopian tube, or primary peritoneal cancer who underwent interval cytoreductive surgery following neoadjuvant chemotherapy at a single institution from 2010 to 2013 were retrospectively evaluated. Demographic data, disease type, neoadjuvant chemotherapy