

How to Write An Effective Abstract

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Disclosures



- The authors have no financial or other conflicts of interest.
- We do enjoy reading and editing abstracts.

Objectives & Learning Activities



By the end of this session participants will be able to:

- Describe common challenges and problems in abstract-writing
- List tips for successful abstract-writing
- Critique published abstracts using the tips

Roadmap:

- Abstracts types, challenges and tips: 15 min
- Group abstract critiques and reports: 20 min
- Abstract exemplars, Q/A: 10 min

Abstracts



Meeting abstract*

*to submit for presentation at
scientific meeting*

VS.

Manuscript abstract

to concisely summarize manuscript

Why submit a meeting abstract?



- May expedite initial dissemination of study results and early feedback by peers
- May provide opportunity to attend meeting
- May jumpstart your timeline to complete and publish the full paper, whether or not there is a linked publication from the meeting
- Allows practice refining and focusing what you will say about the study



Our Top Ten Tips for Abstract Writing

#1 Do Not Procrastinate



- “Writing is easy; all you do is sit staring at a blank sheet of paper until the drops of blood form on your forehead” (Gene Fowler, from *Obstetrics & Gynecology: A Guide to Writing*)
- Difficult to synthesize complex work completely and concisely
- Start with easiest section to build momentum
- Check meeting submission deadline and work backwards on timeline – include time for co-author review and independent reviews by colleagues

#2 Review successful abstracts



- Review abstracts from target meeting from previous years for style/audience
- Easy way to start process and stop procrastinating!

#3 Follow directions



- Carefully review instructions for authors
- Pay attention to word limits, structured format titles, author limits
- Check rules about presenting at other meetings and publications

#4 Complete data analysis/plan before writing abstract

- For manuscript, abstract is written last
- For meeting submission, ideally data analysis should be completed before drafting abstract; at a minimum, data analysis plan and table shells should be finalized

#5 Minimize use of acronyms

- Acronyms WDPC
- Define with first use
- Beware of commonly confused acronyms – *does ART refer to antiretroviral therapy or assisted reproductive technology?*

#6 Include the “so what?”


- Report absolute differences in rates of the primary outcome (not only RR/OR with 95%CI): allows NNT for one benefit or harm
- If a negative study, mention how large a difference the study had adequate statistical power to detect
- Ensure that the conclusions are supported by the data presented, using “cause-effect” language only when justified, otherwise “association” language
- In conclusions, include the take-home message, what clinicians need to know, keeping inferences narrow

#7 Define all terms clearly



- What was the intervention?
- If an observational study what were the predictors, exposures , and other explanatory variables and potential confounders?
- How was the primary outcome defined and measured?
- What were the secondary outcomes?

#8 Passive voice is avoided. We use active voice.



- “We recruited 10 participants” vs. “Ten participants were recruited”
- May depend on conference/journal style

#9 Prufreed, proofreed, proofread



- All numbers match
- Avoid shifting denominators and verb tenses
- All proportions add up to 100%
- Define all terms
- Avoid tunnel vision
 - Set aside for a few days to gain fresh perspective
 - Ask uninvolved colleagues to review

#10 Publish the manuscript



- After presenting at a scientific meeting, rapidly complete and publish the full manuscript in a peer-reviewed journal
 - ▣ May get scooped!
 - ▣ Unpublished abstracts may be red flag on CV

Systematic review of >19,000 abstracts presented at >230 biomedical meetings → 45% published as full papers

Abstract Critiques and Reports



Abstract 1: 2D-Vision Training for MS

Familiarization of undergraduate medical students with the two-dimensional vision of laparoscopic surgery: Preliminary results of a prospective follow-up study.

Abstract

BACKGROUND: To date, the feasibility of pre-graduate training in 2D vision has not been studied thoroughly. The purpose of this pilot study is to present the preliminary results of a pre-graduate laparoscopic training program.

MATERIALS AND METHODS: We invited pre-graduate medical students to participate in an experimental training program which strengthened their essential skills in 2D-vision. An easy-to-use, cost-effective, hand-made laparoscopic training box was constructed and used.

RESULTS: Twenty-four pre-graduate students participated in our study. The ability of medical students to co-ordinate their movements on the 2D-space was strengthened from the first to the fourth time of performing the easiest tasks (bead transfer and rope cutting) ($P < .001$). This was not observed in the case of the two harder tasks (necklace formation and intracorporeal knot), despite the fact that time to fulfillment differed ($P = .058$ & $P = .082$) respectively. The overall assessment of the simulator in terms of portability, imaging, light, camera convenience to use and significance ranked from high to very high.

CONCLUSION: Familiarization with the 2D environment of laparoscopic surgery is extremely important for medical students. The results of our study seem to be promising, as they show that basic tasks are easy to learn with the use of relatively inexpensive equipment.

Abstract 2: hCG trends after Molar Preg

Follow-Up After Molar Pregnancy Evacuation: Feasibility of Using Semi-Quantitative Urine Pregnancy Tests.

Abstract

OBJECTIVE: To evaluate human chorionic gonadotropin (hCG) trends after evacuation of complete hydatidiform moles to determine if urinary semiquantitative pregnancy tests (SQPTs) could replace blood draws while still detecting early postmolar gestational trophoblastic neoplasia.

STUDY DESIGN: A retrospective review of complete hydatidiform moles at a safety-net hospital from 2003-2013 was performed. hCG curves were used to extrapolate expected SQPT results over time for a resolving hydatidiform mole.

RESULTS: Of 61 complete moles, 37 had an uncomplicated hCG decline and at least 4 serum hCG results. All of those patients had hCG < 10,000 mIU/mL within 15 days, < 2,000 within 64 days, < 500 within 70 days (92.2% within 1 month), < 100 within 89 days (90% within 2 months), and < 25 within 152 days (95.2% within 3 months). After reaching levels < 25, hCG rose only in cases of new pregnancies.

CONCLUSION: Based on this retrospective analysis, SQPT monitoring could have avoided 90% of blood draws while still flagging all patients with subsequent postmolar GTN within 45 days by limiting blood draws to (1) patients with SQPT levels of > 10,000, > 500, and > 100 mIU/mL at 15, 30, and 45 days, respectively, (2) hCG > 25 after 60 days, or (3) increasing SQPT levels.

Abstract 3: Lysis of Intrauterine Adhesions

Lysis of intrauterine adhesions using gynecoradiologic techniques.

Abstract

OBJECTIVE: To present further experience with in-office lysis of intrauterine adhesions under fluoroscopic control using a specially designed catheter.

DESIGN: Prospective study.

SETTING: Medical school-affiliated infertility center.

PATIENT(S): Seventeen infertile patients undergoing routine gynecoradiologic investigation as part of an initial infertility workup.

INTERVENTION(S): The initial hysterosalpinography was performed with a commercially available uterine catheter that seals off the uterine cavity before injection of contrast. If intrauterine adhesions were diagnosed, an immediate attempt at lysis was made using the catheter's balloon tip or hysteroscopic scissors, which were inserted through the main port of the catheter. The procedures were carried out using a paracervical block or IV analgesia.

MAIN OUTCOME MEASURE(S): Normal uterine cavity after lysis of intrauterine adhesions.

RESULT(S): Seventeen patients underwent lysis of intrauterine adhesions. In 13 patients (9 mild, 3 moderate, and 1 severe), the adhesions were lysed successfully (81.2%). Among those, nine procedures were performed with the balloon and four with scissors. In 4 cases (2 moderate and 2 severe), lysis of adhesions was only partially successful. These procedures had to be abandoned prematurely because of patient discomfort before attempting the use of scissors (n = 1), extravasation of dye into the myometrium making visualization difficult (n = 1), and thick, fibrotic adhesions that were resistant to scissors (n = 2).

CONCLUSION(S): In-office lysis of intrauterine adhesions under gynecoradiologic control can be carried out safely in the majority of patients, using minimally invasive techniques. The potential cost savings in comparison with endoscopic procedures, which require utilization of expensive operating room time, are especially relevant in today's cost-conscious managed care environment. Only failures of in-office procedures would reach the operating room under the algorithm proposed here.

Abstract 4: Post-LSC Pain

Single port laparoscopy (SPL): Retrospective study evaluating postoperative pain in comparison with conventional laparoscopy (CL).

Abstract

OBJECTIVE: To compare postoperative pain after single port laparoscopy (SPL) approach with conventional laparoscopy (CL) in case of adnexectomy.

MATERIAL AND METHODS: This is a retrospective monocentric study involving patients who underwent adnexal surgery by SPL or CL for a suspected benign disease or as a preventive measure. The main outcome measure was the level of postoperative pain.

RESULTS: A total of 87 patients were enrolled. Within 2 hours, the numerical scale (NS) was 1.9 in SPL group and 2.0 in the CL group ($p=0.85$). The next day, the NS was 1.8 in SPL group and 1.5 in CL group ($p=0.55$). The operating time was significantly shorter in SPL group (33 versus 56 min, 95% CI [-31; -15], $p<0,001$) and no rupture of ovarian cysts occurred in this group. There was no significant difference concerning complications, length of hospital stay, general satisfaction and POSAS (Patient and Observer Scar Assessment Scale) score.

CONCLUSION: This study confirms the feasibility of single-port laparoscopic adnexectomy. We have not shown significant difference in postoperative pain but the operating time was significantly reduced under the guise of an experienced surgeon.

Abstract 5: Predicting HSC Myomx Outcomes

Sonohysterographic predictors of successful hysteroscopic myomectomies.

Abstract

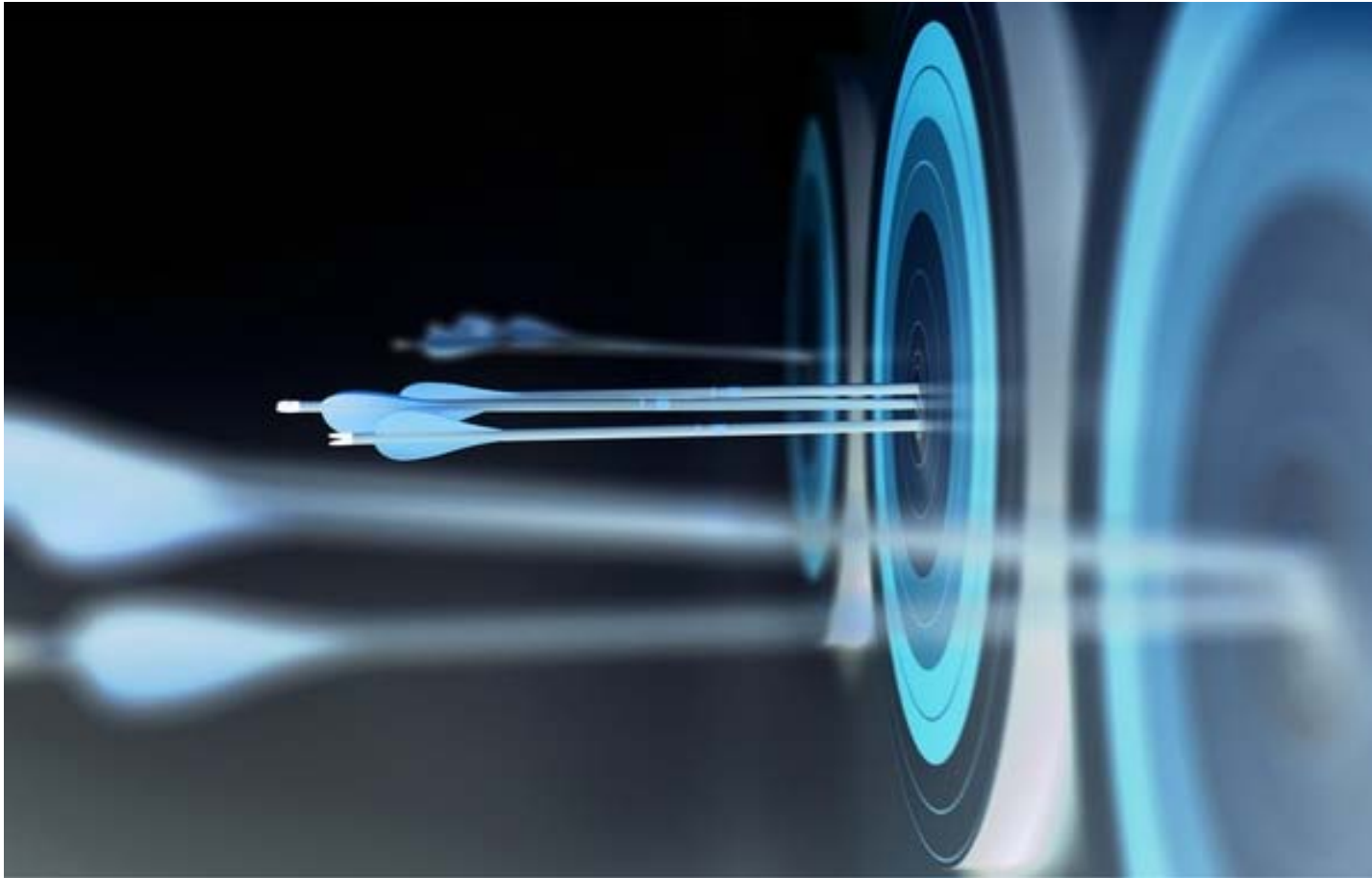
BACKGROUND AND OBJECTIVES: The purpose of this study is to assess the rate of persistent submucosal myomas and intrauterine scarring after hysteroscopic myomectomy, as well as to evaluate the preoperative and intraoperative sonohysterographic findings that will predict persistence of myomas, scarring, and the need for repeat surgery.

METHODS: Charts from all hysteroscopic myomectomies performed by a single surgeon between 2003 and 2011 were reviewed for preoperative, intraoperative, and postoperative sonohysterographic findings. Predictors included myoma number, diameter and percent extension into the cavity of the largest fibroid, and percent surgically resected. These predictors were assessed with postoperative sonohysterography. Statistics included t test, logistic regression, χ^2 test, and Fisher exact test.

RESULTS: Among the 79 cases with postoperative sonohysterograms, 17 (21.5%) had persistent submucosal myoma, and 9 (11.4%) had intrauterine scarring on postoperative sonohysterogram. Repeat hysteroscopic myomectomy was required in 11 (13.9%), but none required lysis of adhesions. The myoma number was not a significant predictor. A higher percentage of myoma within the cavity (63.35% vs 44.89%, $P < .05$) and smaller myoma size (2.22 cm vs 3.31 cm, $P < .01$) were significant predictors of a complete resection, a normal postoperative sonohysterogram, and avoidance of repeat surgery. On regression analysis, the percent of the myoma resected was the most significant outcome predictor ($P < .001$).

CONCLUSION: Larger myomas with a lower percent found within the uterine cavity are less likely to be completely resected. Percent resection at the time of surgery is the most significant predictor of a normal postoperative sonohysterogram, as well as the best predictor of the need for repeat surgery.

Abstract Exemplars



Mechanical and Pharmacologic Methods of Labor Induction: A Randomized Controlled Trial.

Abstract

OBJECTIVE: To evaluate the effectiveness of four commonly used induction methods.

METHODS: This randomized trial compared four induction methods: misoprostol alone, Foley alone, misoprostol-cervical Foley concurrently, and Foley-oxytocin concurrently. Women undergoing labor induction with full-term (37 weeks of gestation or greater), singleton, vertex-presenting gestations, with no contraindication to vaginal delivery, intact membranes, Bishop score 6 or less, and cervical dilation 2 cm or less were included. Women were enrolled only once during the study period. Our primary outcome was time to delivery. Neither patients nor health care providers were blinded to assigned treatment group because examinations are required for placement of all methods; however, research personnel were blinded during data abstraction. A sample size of 123 per group (n=492) was planned to compare the four groups pairwise ($P \leq .008$) with a 4-hour reduction in delivery time considered clinically meaningful.

RESULTS: From May 2013 through June 2015, 997 women were screened and 491 were randomized and analyzed. Demographic and clinical characteristics were similar among the four treatment groups. When comparing all induction method groups, combination methods achieved a faster median time to delivery than single-agent methods (misoprostol-Foley: 13.1 hours, Foley-oxytocin: 14.5 hours, misoprostol: 17.6 hours, Foley: 17.7 hours, $P < .001$). When censored for cesarean delivery and adjusting for parity, women who received misoprostol-Foley were almost twice as likely to deliver before women who received misoprostol alone (hazard ratio 1.92, 95% confidence interval [CI] 1.42-2.59) or Foley alone (hazard ratio 1.87, 95% CI 1.87 1.39-2.52), whereas Foley-oxytocin was not statistically different from single-agent methods.

CONCLUSION: After censoring for cesarean delivery and adjusting for parity, misoprostol-cervical Foley resulted in twice the chance of delivering before either single-agent method.

Change in Surgical Practice for Women With Leiomyomas After the U.S. Food and Drug Administration Morcellator Safety Communication.

Abstract

OBJECTIVE: To evaluate the association between the U.S. Food and Drug Administration (FDA) communication discouraging use of power morcellators on changes in surgical practice for women with uterine leiomyomas.

METHODS: This is a cross-sectional study using data from 2013 to 2014 in the Healthcare Cost and Utilization Project State Inpatient and State Ambulatory Surgical Databases from Arizona, Florida, Kentucky, and New Jersey. Women with a diagnosis of leiomyomas who underwent hysterectomy or myomectomy were included in the analysis. Multivariable models were used to assess changes in the proportion of hysterectomies performed laparoscopically, vaginally, or by laparotomy in the 15 months before the FDA safety communication in April 2013 (January 2013 to March 2014) to the 9 months after the FDA communication (April to December 2014). Changes in the proportion of women who underwent myomectomy compared with hysterectomy were also evaluated during this time period.

RESULTS: There were 77,637 hysterectomy and myomectomy cases analyzed from states with both inpatient and ambulatory surgery data; 59% of patients were outpatients. Overall, there was a 4% (95% CI 3.2-4.8%) decrease in the use of laparoscopic hysterectomy for treatment of uterine leiomyomas from 62% of all hysterectomies before the FDA communication on morcellation to 58% afterward. Changes in surgical practice were more pronounced in the inpatient compared with outpatient setting; inpatient laparoscopic hysterectomy decreased by 7% (95% CI 6.1-7.9%) from 24% to 17% of all hysterectomies with an accompanying increase in abdominal hysterectomy of 8% (95% CI 6.7-8.6%) from 71% to 79%. There were no significant changes in the proportion of women with leiomyomas who underwent myomectomy compared with hysterectomy.

CONCLUSION: The FDA communication discouraging the use of power morcellators was associated with a decline in laparoscopy to perform hysterectomy, particularly in the inpatient setting. There was no change in the selection of myomectomy compared with hysterectomy for leiomyoma treatment after the FDA communication.

