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Editorial

Is the Art of Hysteroscopy in jeopardy? A wake-up call

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Up to Date

Is the Art of Hysteroscopy in jeopardy? A wake-up call

Hysteroscopy has gained an important role in modern gynecology. It is the gold standard for diagnosing and managing intrauterine pathology. Despite the tremendous diagnostic and therapeutic capabilities of hysteroscopy, it remains widely underutilized. The first blind intra-uterine procedures are attributed to Recamier in the 1840s (1). Despite the rocketing technological advances in all aspects of life and particularly the medical field, techniques such as blind endometrial biopsy, Dilation & Curettage, and the blind use of a polyp forceps inside the uterine cavity are still pervasive in today's gynecologic practice, without any incremental improvements since the 1800s. There seems to be resistance to the mindset that visualizing pathology and endometrial sampling or extraction of intra-uterine pathology under direct visualization are far superior to blindly attempting to achieve the same. Blind intra-uterine procedures are fraught with drawbacks, as summarized by Lewis in 1993, "Diagnostically inaccurate and therapeutically useless"(2), in addition to the increased risks of intra-uterine adhesions, uterine perforations, persistent symptoms, and need for reoperation. Although hysteroscopy was introduced as early as 1869 by Pantaleoni (3), it remains severely underutilized by - gynecologists; and residents and fellows training in office hysteroscopy is dismal, with only 26.3% of residents reporting receiving adequate training in office hysteroscopy. Of the fourth-year residents, only 14.5% reported feeling comfortable performing hysteroscopic procedures independently (4).

In this issue of JMIG, Zelivianskaia et al present an interesting, thought-provoking study unmasking the current underuse of in-office hysteroscopy in the academic setting in the United States (5).

Aiming to identify the 3 top barriers to performing hysteroscopy by AAGL-accredited FMIGS faculty and fellows and to recognize opportunities for education on hysteroscopy, the authors surveyed FMIGS fellowships program directors (n=60), associate directors (n=92), and fellows (n=158) inquiring about current hysteroscopic practice in their fellowship programs. They obtained a 30% response rate for the online survey. It is sad to learn that only 2/3 of the responders perform in-office hysteroscopy, with an astonishing 73% performing 5 procedures or less per month, and only 5 participants in the survey reported performing more than 15 in-office hysteroscopic procedures/month. Fifty-six percent of the participants expressed interest in further education on hysteroscopy. The article takes note that the requirement of a minimal number of office hysteroscopies during fellowship was dropped for fellows graduating in 2020, due to the majority of FMIGS programs not having adequate office hysteroscopy volume for their trainees to meet this requirement.

The survey was well-designed and obtained an average response rate for a 15-minute-long survey without monetary compensation; however, a few points deserve consideration. As acknowledged by the authors, the survey was made available on the same day that an entire class of fellows (2024) started the fellowship. Their answers should be interpreted with caution. Moreover, since the survey was anonymous, it was impossible to identify the participants'

fellowship program. It is known that there is significant variation among the various MIGS fellowship programs, with some being more infertility-reproductive surgery oriented (more likely to incorporate in-office hysteroscopy training) while others may be focused on laparoscopic, robot-assisted, or vaginal procedures. Lastly, office hysteroscopy was not clearly defined in the survey.

Despite the low survey response, the data is sobering, informative, and illuminating. For many programs, hysteroscopy case volumes are low with the potential of graduating fellows with limited proficiency in the performance of office hysteroscopy. While not discussed, office hysteroscopy provides a gateway to offer minimally invasive surgical solutions, notably, operative hysteroscopy, as essential options for the most conservative management of women with intrauterine pathology.

With granular detail, the authors list potential reasons for the low numbers of office hysteroscopy in FMIGS training. These include concerns about pain management, financial concerns (equipment and sterilization), and staff training.

Each of these reported barriers has been studied, with evidence-based solutions offered (6-8). These commonly perceived and cited barriers can be overcome with hysteroscopy champions; surgeons motivated to debunk these myths. In the absence of consensus on the ideal pain management, each fellowship should tailor pain protocols that work for their institution, with a particular focus on utilizing the principles of trauma-informed care and “Primum non nocere”.

Fellowship programs need hysteroscopy champions that keep up to date with new evidence and the rapidly evolving technology, with many devices now miniaturized, often disposable, and provide excellent visualization and versatile tools. In addition, the vaginoscopic approach in expert hands has improved acceptance and tolerability of the procedure. Hysteroscopy champions must also be cognizant of regional and national reimbursement models and create business plans that can demonstrate return on investment to department chairs and health systems administrators (6-8).

It's important to deploy a multi-pronged approach to improving training in intra-uterine surgery in OB GYN residencies and fellowships, such as simulation, workshops, proctoring, and mentoring. Low procedure numbers should not trigger removing office hysteroscopy as a requirement in advanced MIGS training. Postgraduate training is the most critical time for acquiring these skills.

We strongly urge all OB GYN physicians, and particularly MIGS surgeons, to fully adopt hysteroscopy for the comprehensive management of women with AUB, intra-uterine pathology, and infertility, and not settle for blind procedures, or unnecessary extirpative solutions.

References

1. Munde PF. *Minor Surgical Gynecology: A Manual of Uterine Diagnosis and the Lesser Technicalities of gynaecological practice*. London: Sampson Low, Marston, Searle and Rivington, 1880.
2. Lewis BV. Diagnostic dilatation and curettage in young women. *BMJ*. 1993 Jan 23;306(6872):225-6. doi: 10.1136/bmj.306.6872.225. PMID: 8443518; PMCID: PMC1676760.
3. Pantaleoni DC. On endoscopic examination of the cavity of the womb. *Med Press Crinic*. 1869;8:26.
4. Michel L, Chudnoff S. Gynecology Resident Experience with Office Hysteroscopy Training. *JSLs*. 2023 Apr-Jun;27(2):e2023.00009. doi: 10.4293/JSLs.2023.00009. PMID: 37522105; PMCID: PMC10371772.
5. Anna Zelivianskaia, MD, FACOG; Aparna R. Ramanathan, MD, MPH; Angela Qu, DO; James K. Robinson III, MD, MS, FACOG. Barriers to Office Hysteroscopy in Fellowship Education and Practice. *JMIG* 2024 January. DOI:<https://doi.org/10.1016/j.jmig.2024.01.003>
6. Moawad NS, Santamaria E, Johnson M, Shuster J. Cost-effectiveness of office hysteroscopy for abnormal uterine bleeding. *JSLs*. 2014 Jul-Sep;18(3):e2014.00393. doi: 10.4293/JSLs.2014.00393. PMID: 25392645; PMCID: PMC4154435.
7. Orlando MS, Bradley LD. Implementation of Office Hysteroscopy for the Evaluation and Treatment of Intrauterine Pathology. *Obstet Gynecol*. 2022 Sep

1;140(3):499-513. doi: 10.1097/AOG.0000000000004898. Epub 2022 Aug 3. PMID: 35926213.

8. Buzzaccarini G, Alonso Pacheco L, Vitagliano A, Haimovich S, Chiantera V, Török P, Vitale SG, Laganà AS, Carugno J. Pain Management during Office Hysteroscopy: An Evidence-Based Approach. *Medicina (Kaunas)*. 2022 Aug 20;58(8):1132. doi: 10.3390/medicina58081132. PMID: 36013599; PMCID: PMC9416725.

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