

**ORIGINAL RESEARCH**

# Retrospective assessment of cases of diagnostic hysterectomy

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**ABSTRACT**

**Background:** The present retrospective was added for evaluation of cases of diagnostic hysterectomy. **Materials & methods:** A Total of 100 cases were enrolled. Complete details of all the cases were obtained from record files. Only those cases were enrolled in which hysteroscopy was performed. Transvaginal ultrasound or hysterosalpingography (HSG) were used to screen individuals who had hysteroscopy for pathology suspected by another imagistic approach. Prior to hysteroscopy, hemograms, vaginal bacteriologic testing, and PAP smears were the standard investigative methods. Since less than 1% of women get post-hysteroscopy infection, antibiotics are not usually given during hysteroscopy in order to prevent surgical site infections or endocarditis. The association between pre- and post-operative diagnoses, the type of anesthetic utilized, and the criteria for diagnostic hysteroscopy were also evaluated. **Results:** Indications of diagnostic hysteroscopies were Primary/secondary fertility, Pathology suspected by transvaginal sonography, Chronic endometritis, Abnormal uterine bleeding 28 percent, 12 percent, 8 percent and 5 percent of the cases respectively. Best diagnostic accuracy was for transvaginal sonography in cases of sub mucosal miomas (71.3%) and the lowest rate of detection was for HSG in other cases (uterine and cervico-istmic sinechiae : 28.6%). **Conclusion:** Diagnostic hysteroscopy should be done before Assisted Human Reproduction procedures.

**Key words:** Diagnostic hysteroscopy, Assisted Human Reproduction

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**INTRODUCTION**

Visual examination of the uterine cavity and contextual operative facilities have provided the gynecologist with the perfect 'diagnostic' tool, making it possible to examine the cavity and biopsy suspected areas under direct visualization. The approach used to insert the scope, together with the diameter of the hysteroscope and the distention of the uterine cavity, are of extreme importance in reducing patient discomfort to a minimum during an outpatient examination.<sup>1-3</sup> The vaginoscopic approach (without speculum or tenaculum) has definitively eliminated patient discomfort related to the traditional approach to the uterus. Diagnostic hysteroscopy has long paid the price of being a purely visual method of investigation. Today, thanks to recent advances in instrumentation and to modified techniques related to the simultaneous use of the scope and of instruments, hysteroscopy is finally achieving the full accuracy that has been awaited for the last 20 years.<sup>4,5</sup> Hence; the present study was conducted for retrospectively analyzing of cases of diagnostic hysterectomy.

**MATERIALS & METHODS**

The present study was conducted with the aim of retrospective analyzing cases of diagnostic hysteroscopies. A total of 100 cases were enrolled. Complete details of all the cases were obtained from record files. Only those cases were enrolled in which hysteroscopy was performed. Transvaginal ultrasound or hysterosalpingography (HSG) were used to screen individuals who had hysteroscopy for pathology suspected by another imagistic approach. Prior to hysteroscopy, hemograms, vaginal bacteriologic testing, and PAP smears were the standard investigative methods. Since less than 1% of women get post-hysteroscopy infection, antibiotics are not usually given during hysteroscopy in order to prevent surgical site infections or endocarditis. The association between pre- and post-operative diagnoses, the type of anesthetic utilized, and the criteria for diagnostic hysteroscopy were also evaluated. All the details were recorded in Microsoft excel sheet and were subjected to statistical analysis using SPSS software.

**RESULTS**

A total of 100 cases were analyzed. Diagnostic hysteroscopies, Hysteroscopic polypectomy, Hysteroscopic myomectomy and Hysteroscopic metroplasty were the interventions in 56 percent, 15 percent, 11 percent and 10 percent of the cases. Indications of diagnostic hysteroscopies were Primary/secondary fertility, Pathology suspected by

transvaginal sonography, Chronic endometritis, Abnormal uterine bleeding 28 percent, 12 percent, 8 percent and 5 percent of the cases respectively. Best diagnostic accuracy was for trans-vaginal sonography in cases of sub mucosal miomas (71.3%) and the lowest rate of detection was for HSG in other cases (uterine and cervico-istmic sinechiae : 28.6%).

**Table 1: Distribution of pathologies in 100 hysteroscopies**

Intervention	Number	Percentage
Diagnostic hysteroscopies	56	56
Hysteroscopic polypectomy	15	15
Hysteroscopic myomectomy	11	11
Hysteroscopic metroplasty	10	10
Others	8	8
Total	100	100

**Table 2: Indications of diagnostic hysteroscopies**

Indications	Number	Percentage
Primary/secondary fertility	28	50
Pathology suspected by transvaginal sonography	12	21.42
Chronic endometritis	8	14.28
Abnormal uterine bleeding	5	8.92
Others	3	5.38
Total	56	100

**Table 3: Concordance between preoperative and postoperative diagnostic**

Diagnostic	Postoperative (%)	False positive results (&)
Submucosa mioma	71.3 %	28.7 %
Endometrial polyp	62.8 %	37.2 %
Proximal tubal disease	60.7 %	29.3 %
Others	28.6 %	61.4 %

**DISCUSSION**

Hysteroscopy is a technique by which we can peep into the cavity of the uterus through the cervix. Before the advent of a hysteroscope, the standard procedure of blind dilatation and curettage (D&C) was used along with hysterosalpingography (HSG) for the evaluation of the uterus. Bozzini in 1805 first peered into the urethra of a living subject and this was the beginning of endoscopy which has now advanced into a modern endoscopic surgery of today. The credit of performing the first successful hysteroscopy goes to Pantaleoni in 1869. He evaluated a 60 year old lady with therapy resistant bleeding and detected a polypoid growth in the uterus on hysteroscopy, which was cauterised with silver nitrate. It was David, who performed hysteroscopic examination using a cystoscope with an internal light and lens system.<sup>6-9</sup>Hence; the present study was conducted for retrospectively analyzing of cases of diagnostic hysterectomy.

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Indications of diagnostic hysteroscopies were Primary/secondary fertility, Pathology suspected by transvaginal sonography, Chronic endometritis, Abnormal uterine bleeding 28 percent, 12 percent, 8 percent and 5 percent of the cases respectively. Best diagnostic accuracy was for trans-vaginal sonography in cases of sub mucosal miomas (71.3%) and the lowest rate of detection was for HSG in other cases (uterine and cervico-istmic sinechiae : 28.6%).Stefanescu A et al retrospectively evaluated 1545 diagnostic hysteroscopies performed in the "Prof. Dr. Panait Sirbu" Obstetrics and Gynecology Hospital between January 1, 2008 and June 30, 2011. The following parameters were studied: diagnostic hysteroscopy indications, type of anesthesia used, correlation between pre-and postoperative diagnoses.Of 1545 diagnostic hysteroscopies, 78% of cases were performed without anesthesia; of the total of 299 cases of primary infertility diagnostic hysteroscopy showed in 34% of cases tubal obstruction and endouterine pathology; of the total 396 cases of secondary infertility under investigation, diagnostic hysteroscopy showed in 40% of cases tubal obstruction and endouterine pathology; the highest accuracy of HSG was noted for uterine malformation

and minimal accuracy was observed for intrauterine adhesions. Their experience supports the opinion that diagnostic hysteroscopy should be a first-line routine exam in infertility.<sup>10</sup>

van Dongen Het al assessed the accuracy and feasibility of diagnostic hysteroscopy in the evaluation of intrauterine abnormalities in women with abnormal uterine bleeding. Electronic databases were searched for relevant studies and references were cross-checked. Validity was assessed and data were extracted independently by two authors. Heterogeneity was calculated and data were pooled. Subgroup analysis was performed according to validity criteria, study quality, menopausal state, time, setting and performance of the procedure. The pooled sensitivity, specificity, likelihood ratios, post-test probabilities and feasibility of diagnostic hysteroscopy on the prediction of uterine cavity abnormalities. Post-test probabilities were derived from the likelihood ratios and prevalence of intrauterine abnormalities among included studies. Feasibility included technical success rate and complication rate. One population of homogeneous data could be identified, consisting of patients with postmenopausal bleeding. In this subgroup the positive and negative likelihood ratios were 7.9 (95% CI 4.79-13.10) and 0.04 (95% CI 0.02-0.09), raising the pre-test probability from 0.61 to a post-test probability of 0.93 (95% CI 0.88-0.95) for positive results and reducing it to 0.06 (95% CI 0.03-0.13) for negative results. The pooled likelihood ratios of all studies included, calculated with the random effects model, were 6.5 (95% CI 4.1-10.4) and 0.08 (95% CI 0.07-0.10), changing the pre-test probability of 0.46 to post-test probabilities of 0.85 (95% CI 0.78-0.90) and 0.07 (0.06-0.08) for positive and negative results respectively. Subgroup analyses gave similar results.

The overall success rate of diagnostic hysteroscopy was estimated at 96.9% (SD 5.2%, range 83-100%).<sup>11</sup>

## CONCLUSION

Diagnostic hysteroscopy should be done before Assisted Human Reproduction procedures.

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