DIAGNOSTIC AND OPERATIVE HYSTEROSCOPY TO AUGMENT FERTILITY

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Hysteroscopy has evolved from a purely diagnostic procedure to a central modality for fertility-enhancing surgery, offering direct visualisation of the endometrial cavity and precise correction of intracavitary pathology that impairs implantation and early pregnancy maintenance. For fertility specialists, mastering operative hysteroscopy is no longer optional; it is critical for optimising reproductive outcomes while minimising patient morbidity.

Subfertile patients frequently harbour structural abnormalities including endometrial polyps, submucosal leiomyomas, intrauterine adhesions, uterine septa, retained products of conception, and niche defects following caesarean delivery. Even in asymptomatic individuals with normal transvaginal ultrasound, hysteroscopy identifies subtle lesions or adhesions in up to one-third of cases. These pathologies disrupt endometrial receptivity through mechanical distortion, inflammation, impaired perfusion, or altered gene expression, ultimately hindering embryo implantation. Hysteroscopic surgery enables single-session treatment using electromechanical morcellation, bipolar resection, micro-scissors, or laser, preserving surrounding endometrium and allowing rapid recovery with minimal scarring risk.

Evidence consistently supports improved clinical pregnancy and live birth rates following hysteroscopic removal of polyps and submucosal fibroids, and after septum resection when ART failure or recurrent pregnancy loss coexist. Adhesiolysis restores cavity integrity and menstrual flow, with barrier gels and anti-adhesion strategies reducing recurrence. Hysteroscopy also facilitates targeted endometrial biopsy for chronic endometritis evaluation and precise intervention based on culture or molecular testing, reinforcing its broader fertility value.

Timing is equally critical. Surgery is ideally performed in the early proliferative phase when the endometrium is thin, enhancing safety and visibility. Integration with IVF planning should ensure minimal delay to embryo transfer while maintaining adequate healing when deep resection is required. Complication rates remain low but vigilance is necessary to avoid fluid overload, perforation, or thermal injury, particularly in scarred or anatomically complex uteri.

Hysteroscopy delivers unmatched precision for cavity restoration and fertility optimisation. When systematically implemented and skilfully performed, it bridges the gap between structural correction and functional endometrial recovery, translating into meaningful reproductive success for patients.

ISBN Number : 978-81-995582-9-8 Crossref