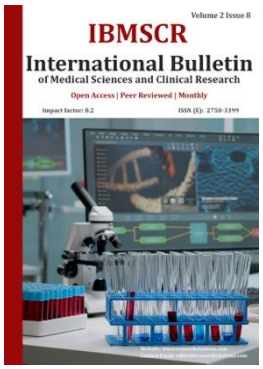

METHODS OF PREPARING INFERTILE WOMEN FOR IMPLANTATION BEFORE IVF-REHABILITATION PROGRAMS

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Annotatian. A global study found that the global prevalence of infertility remained virtually unchanged between 1990 and 2010, with an estimated 48.5 million couples worldwide having difficulty having a child over 5 years of age in 2010. Morphological and functional disorders of the fallopian tubes, such as obstruction, rigidity deformation and peristaltic imbalance, occurring in various diseases, account for 25–30% of all cases of infertility [9]. Accurate assessment of tubal patency can be important evidence for targeted clinical treatment. Laparoscopy and dye intubation (knees and dye) have long been considered the gold standard for tubal patency testing; but in the public sector there are concerns about long delays and costs, as well as risks associated with anesthesia and surgery [10]. The more accessible hysterosalpingography involves X-ray exposure and the risk of hypersensitivity reaction to iodinated contrast agents. Compared to these procedures, transvaginal Hysterosalpine contrast sonography (HSCS) is a non-invasive, safe and cost-effective method that provides rapid, easy and reliable diagnosis of tubal patency [11]. So far, some studies have attempted to evaluate the accuracy of GCS in diagnosing tubal patency compared with traditional methods.

Keywords: COH; IVF/ART; POF; POI; poor responders.

Methods: The primary outcome used to assess efficacy of both treatment methods is live birth (LB) rates. Secondary outcomes used are clinical pregnancy (CP) and ongoing pregnancy (OP) rates. A comprehensive literature search of 4 databases: Ovid MEDLINE, EMBASE, Maternity & Infant Care and the Cochrane Library were searched in January 2022. Upon removal of duplications, abstract screening, and full-text screening, a total of 34 papers were selected.

Discussion/conclusion: This review highlights a large discrepancy in the literature when examining pregnancy outcomes of IUI and IVF treatments. Evidence shows IUI increases LB and CP rates 3-fold compared to expectant management. Literature comparing IUI to IVF is less certain. The review finds the literature implies IVF should be used for first-line management but the paucity of high-quality randomised controlled trials (RCTs), coupled with heterogeneity of the identified studies and a lack of research amongst women > 40 years warrants the need for further large RCTs. The decision to offer IUI with ovarian stimulation (IUI-OS) or IVF should be based upon patient prognostic factors. We suggest that IUI-OS could be offered as first-line treatment for unexplained infertility for women < 38 years, with good prognosis, and IVF could be offered first to those > 38 years. Patients should be appropriately counselled to enable informed decision making.

The infertile patients with aging ovaries-also sometimes referred to as impending premature ovarian insufficiency (POI), impending premature ovarian failure (POF), or poor ovarian responders (POR), constitute a significant and increasing bulk of the patients

appealing to IVF/ART. Different causes have been cited in the literature, among the identified etiologies, including chromosomal and genetic etiology, metabolic, enzymatic, iatrogenic, toxic, autoimmune, and infectious causes. Although the most successful and ultimate treatment of POI/POF/POR patients is egg donation (ED), many, if not most, of these infertile women are reluctant to consent to ED upon the initial diagnostic interview, requesting alternative solutions despite the low odds for success. Despite anecdotal case reports, no unequivocal treatment proved to be successful for these patients in prospective randomized controlled trials. Nevertheless, the addition of growth hormone (GH) to ovarian stimulation in POR with GH deficiency may improve the results of controlled ovarian hyperstimulation (COH) and the IVF success. In patients with autoimmune etiology for POR/POI, the combination of glucocorticosteroids, pituitary-ovarian suppression, and COH may be successful in achieving the desired conception.

Upon a review of the existing literature, IUI-OS largely demonstrates improved LB, CP and OP outcomes when compared to EM. Studies comparing IUI-OS and IVF were altogether inconclusive; with some studies reporting increased LB, CP and OP outcomes with IVF and others finding no difference between the interventions. Yet, seminal research to support IVF is over 15 years old and more recent research concludes that IUI-OS should be favoured, albeit due to higher patient tolerance and lower cost rather than differences in efficacy. As supported by systematic reviews and meta-analyses, further RCTs are warranted [9]. Future research should stratify results for patients with unexplained infertility via their baseline ovarian reserve, age, and prognosis with stringent exclusion criteria to limit heterogeneity. Further high-quality research may better reflect the evolving trends in IVF success rates upon pregnancy outcomes to demonstrate advancements in efficacy, safety and cost-effectiveness [15]..

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