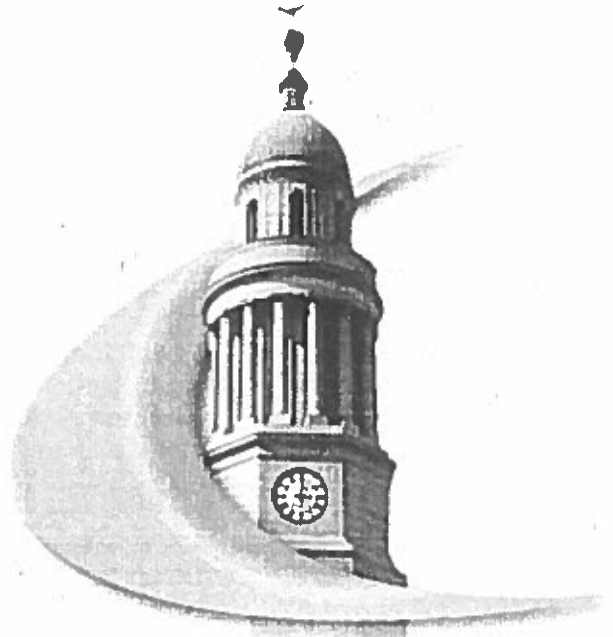


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ASSESSMENT OF THE VALUE OF FALLOPIAN SPERM PERFUSION USING TWO DIFFERENT TECHNIQUES VERSUS CONVENTIONAL IUI.

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ABSTRACT

OBJECTIVES: Evaluation of the effectiveness of fallopian sperm perfusion (FSP) using two different techniques versus intrauterine insemination (IUI) in treatment of couples with unexplained infertility.

DESIGN: Prospective randomised study.

SETTING: Assisted reproduction unit in a private hospital.

PATIENTS: Couples with unexplained infertility.

INTERVENTION: Couples with unexplained infertility were stimulated with urinary Gonadotropins and monitored by transvaginal sonography (TVS). Couples were randomised into three groups according to the method of insemination, group (I) underwent fallopian sperm perfusion using a special suction cannula Fallopian Sperm Transfer System (FAST system), group (II) underwent fallopian sperm perfusion using a paediatric Foley's catheter, and group (III) had conventional IUI.

MAIN OUTCOME: Clinical pregnancy rate (PR).

RESULTS: 106 patients with unexplained infertility underwent 350 cycles with an average of 3.3 cycles per patient. The overall average pregnancy rate was 37% per patient and 11% per cycle. The PR per patient was 48%, 23%, and 39% in the 1st, 2nd, and 3rd groups respectively. There was no significant difference between the 1st group (suction cannula) and the 3rd group (conventional IUI), the *p* value was 0.4. There was also no significant difference between the 2nd group (Foley's catheter) and the 3rd group (conventional IUI), the *p* value was 0.1. The 1st group had a significantly higher PR than the 2nd group (*p*=0.03). PR was significantly higher in couples with infertility duration of less than 4 years compared to couples with infertility of 4 years or more (*p*=0.025). Couples with 3 or more follicles larger than 16 mm diameter at time of insemination had a significantly higher PR than couples with less than 3 follicles (*p*=0.037).

CONCLUSION: FSP and conventional IUI are both effective in management of couples with unexplained infertility stimulated by urinary Gonadotropins. If FSP is to be used, the FAST suction system is superior to paediatric Foley's catheter.

INTRODUCTION

IUI has been used successfully for treatment of unexplained infertility for a long time. Artificial insemination, i.e., the artificial introduction of semen into the female genital tract, was mentioned in writing for the first time in an Arab report dating back to 1322. The first human artificial insemination with husband's semen was performed intravaginally in the late 1700s in England by the English surgeon John Hunter⁽¹⁾. Different insemination techniques such as intravaginal, intracervical, pericervical using a cap, and IUI were used⁽²⁾.

Renewed interest in IUI has increased in the last decade when new methods of sperm preparation, employed in IVF, were also applied in IUI treatment. By using these methods, spermatozoa can be separated from the seminal plasma thoroughly; the concentration of highly motile sperm is increased and pregnancy rate improved⁽³⁻⁵⁾.

In addition to the new techniques for sperm preparation, the combination of controlled ovarian hyperstimulation (COH) and IUI has been another important factor as regards the increased use of IUI treatment, in fact, COH/IUI treatment has been found to be cost-effective for