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<u>Title</u>

PROPHYLACTIC CERVICAL DILITATION FOR PATIENTS WITH A HISTORY OF DIFFICULT EMBRYO TRANSFERS: SIMPLE DAY 3 SOLUTION

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Objective:

Cervical stenosis is usually caused by contraction of scar tissue, agglutination of raw surfaces within the endocervical canal or obliteration of its passage. One treatment option consists of cervical dilatation, which allows access to the uterine cavity. The study sought to evaluate in vitro fertilization (IVF) cycle outcome(s) of patients who had cervical stenosis and/or endured a challenging embryo transfer (ET) and underwent cervical dilatation (CD) prior to a subsequent ET.

Design:

Retrospective cohort analysis

Materials and Methods:

Patients who failed to conceive after a previous "difficult" ET from January 2013 to December 2014 were included. "Difficult" refers to an ET that required a firmer catheter, caused discomfort, took more time than expected or mandated additional instrumentation (such as a Tenaculum). Patients who experienced a CD prior to a subsequent ET were also included. ETs occurred at the blastocyst stage (day 5/6) of embryo development. Main outcomes measures were grade of ET facilitation and clinical pregnancy rate (PR).

Results:

Thirty-two cycles were detected reported with a "difficult" ET. Of these, 6 had a freeze-all or cancelled cycles and were excluded from further analysis. The remaining 26 cycles experienced







a CD with a subsequent ET (biochemical PR: 61.5% (16/26); clinical PR: 53.8% (14/26) and implantation rate: 46.4% (19/41)). No subsequent transfers were categorized as "difficult". Neither a second dilation procedure nor the use of forceps and/or a Tenaculum were required in the treatment group.

Conclusions:

The impact of a "difficult" ET on PR is highly debated within the reproductive medical community. This study demonstrated that a simple early follicular cervical dilatation prior to subsequent ET dramatically improved easy of access to the endometrial cavity and resulted in excellent pregnancy rates. While patients in our practice undergo mock transfer prior to IVF-ET cycles, occasionally an actual embryo transfer can be challenging. In those patients, timed dilatation is a useful and effective strategy.

Support:

None.

Table 1:

	Cervical Dilation
Cycles	26
Age	39.3±7.7
BMI	25.9±4.2
FSH	14.4±23.9
BAFC	8.9±6.0
Peak E2	1571.3±1118.1
Endometrial thickness	8.2±1.1
Retrieved	4.8±7.4
Insemination	
Conventional	17
ICSI	9
Ferts per oocyte	52% (65/125)
Embryos transferred	1.6±0.8
Biochemical PR	61.5% (16/26)
Clinical PR	53.8% (14/26)
Implantation rate	43.3% (19/41)
Miscarriage rate	31.3% (5/16)