

ZAM ZAM WATER A NEW MODALITY FOR FAILED REPEATED INTRA CYTOPLASMIC SPERM INJECTION

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ABSTRACT

Objective: is to test the value of ZAM ZAM water in the treatment of failed repeated intracytoplasmic sperm injection.

Material and Method: 10 patients complaining of failed repeated intracytoplasmic sperm injection were enrolled in the study. Intrauterine injection of sterile 15 ml of ZAM ZAM water by embryonal catheter at the time of ovum pickup and 15 ml of sterile ZAM ZAM water at the time of embryo transfer.

Results: Live birth rate 70%, mean birth weight 2.99 ± 100.11 , method of delivery by cesarean section. No fetal and maternal complication.

Conclusion: ZAM ZAM water is a new modality for repeated failed intracytoplasmic sperm injection.

Keywords: Aquaporins, BDNF, Calcium, embryo catheter, repeated failed ICSI, Zam Zam water.

INTRODUCTION

The 2005 ESHRE PGD Consortium defines recurrent implantation loss as ">3 embryo transfers with high quality embryos or the transfer of ≥ 10 embryos in multiple transfers; exact numbers to be determined by each centre⁽¹⁾."

Many modalities of treatment include immunological testing and treatment, allogenic lymphocyte therapy, intratubal transfer of zygotes and embryos, blasto cyst transfer, sequential embryo transfer, assisted hatching, co-cultures, and preimplantation genetic screening for aneuploidy⁽²⁾.

Zam Zam well is located in the holiest mosque of the Muslims in the city of Makkah which is in the western province of the Kingdom of Saudi Arabia. The well is four thousand years old, millions of Muslims drink this water as sacred water especially during pilgrimage and Umrah each year, a total 34 elements have been found with calcium, magnesium, Sodium and chloride, fluorides in the highest concentrations⁽³⁾.

Zam Zam is unique in its natural characteristics as it is hard carbonated water; it has been proven that there are no microbes whatsoever in the water of **Zam Zam**. Drinking of **Zam Zam** water stimulate increase lactation^(4,5).

Also it has been shown that in **Zam Zam** water no aquaporins is needed for its action and it stimulate aquaporins⁽⁶⁾.

Also it has been concluded that **Zam Zam** water has special optical parameters that are different than those of bottled drinking and distilled waters. Prophet Muhammad Said (the best water on the surface of the earth is that of **Zam Zam**, in it there is a food for the hungry and a cure for the ill). He also Said (The water of **Zam Zam** is for the purpose for which it is drunk)⁽⁸⁾.

MATERIAL AND METHODS

10 Patients complaining of failed repeated ICSI mean age 36.5 ± 2.5 years) Mean number of failed repeated ICSI 7 ± 1.3 intruterine injection of **Zam Zam** sterile water through embryonal catheter at the time of ovum pick up (15 ml) and at the time of embryo transfere (15 ml).

RESULTS

7 cases delivered at $37.2 \pm$ gestations by cesarean section with a mean weight of the foetus 2.99 ± 100.11 so the live birth rate was 70% with no fetal and maternal complication.

DISCUSSION

The supposed mechanism by which **Zam Zam**^(9,10,11) used in the treatment of implantation failene are (stimulation of: endometrial prolactin, Alpha and beta defensin, LIF, endometrial VEGF, an angiopiotein receptors, IL8, proteases, Acquaporine 2, expression of monoamine oxidase A in the endometrium, L-Selectin Ligand MECA – 79), stimulate of inflammation of endometrium, evaking favourable inflammatory reaction in the uterine cavity.] In addition **Zam Zam** water cause upregulation of gap jaunction inter cellular communication and connexin 43 in endometrium. Recently, we demonstrated that it stimulate stem cells differentiation in the endometrium), again the high calcium and Magnisum content is important for

many biochemical processes in the endometrium, and acting as coenzyme. And formation of immunoglobulin,) also **Zam Zam** stimulate the formation of implantation windows through stimulation of aquaporin its high content of fluorides contributed to its strong antimicrobial action.

- Zam Zam stimulate endometrial Nitric oxide (No), it acts as antioxidant, Stimulate endometrial BDNF (Brain derived neurotrophic factor). We should not forget the psychological impact. And reassurance and self satisfaction of the patient while using **Zam Zam** water.

CONCLUSION

Zam Zam water is a new modality for repeated failed ICSI, however a large number and randomized studies is needed to test the efficacy of this new line of treatment.

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