The Efficacy of Mannitol Therapy in the Management of Moderate and Severe Forms of Ovarian Hyperstimulation Syndrome: A New Application

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ABSTRACT

**Background & Aims:** Ovarian hyperstimulation syndrome (OHSS) is an important complication of ART. Based on the disease pathophysiology and the mechanism of the effects of the drug, we selected “Mannitol” as an alternative for “Albumin”. This study was designed to evaluate the efficacy of mannitol therapy in OHSS management.

**Materials & methods:** This interventional non-experimental study was conducted on patients with moderate-severe OHSS over a period of 19 years (1994-2013). All patients at risk for OHSS received a preventive dose of mannitol. If the patients developed signs of moderate/severe OHSS, they entered the study based on the Rizk-Aboulghar classification. Mannitol therapy was started daily or twice a day (adjusted between 1-1.5 g/kg/dose). Patients were monitored according to the standard protocols.

**Results:** Of 6970 women who entered the ovarian stimulation protocol for IVF, 1737 developed OHSS (24.92%), which was mild in 1360 (78.30%), moderate in 339 (19.46%), and severe in 39 (2.24%) patients. Weight loss (P=0.024), the correction of mean intake/output balance (P=0.009) after mannitol therapy, the decrease in the mean duration of hospitalization to 4.72±2.92 days, and the 0.0% mortality rate were the major outcomes.

**Conclusion:** The results of this study showed the efficacy of mannitol therapy on controlling the signs and symptoms of OHSS.

**Keywords:** Ovarian Hyperstimulation Syndrome, OHSS, Management, Mannitol, Mannitol Therapy, Efficacy.

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