

عنوان مقاله:

Effects of Myo-inositol on Sperm Parameters and DNA Integrity in Asthenozoospermia after Cryopreservation

محل انتشار:

بیستمین کنگره بین‌المللی بیولوژی تولید مثل و پانزدهمین کنگره بین‌المللی سلول‌های بنیادی (سال: ۱۳۹۸)

تعداد صفحات اصل مقاله: ۱

نویسندگان:

M Azizi - Department of Biology, Faculty of Science, Arak University, Arak,Iran

M Soleimani Mehranjani - Department of Biology, Faculty of Science, Arak University, Arak,Iran

E Cheraghi - Department of Biology, Faculty of Science, Arak University, Arak,Iran

خلاصه مقاله:

Background: Human semen cryopreservation considered as indispensable part of assisted reproductive centers, andrology laboratories and sperm bank. Despite long history of semen cryopreservation, post thawing survival rate is still limited and fails to meet the ideal expectation. Accordingly, cryoprotective media are commonly supplemented with antioxidants and it has been shown to improve cryo-survival post thawing. Therefore, the aim of this study was to evaluate effect of myo-inositol during human semen cryopreservation. Materials and Methods: A total of ۲۰ semen samples were collected from men with asthenozoospermia parameters attended the Andrology Unit of the Qom Fertility and Infertility Center. Each semen sample was divided into two equal aliquots. The two identical aliquots of each semen sample were randomized into two groups (A and B). Group A was treated with cryo-protectant plus with (۲ mg/mL) Myo-inositol solution, while group B was treated with cryo-protectant alone (control). The Sperm parameters after thawed analysis by WHO guidelines and DNA integrity were evaluated via acridin orange method. Results: The results of this study showed that the sperm samples frozen with cryoprotectant (Myo-inositol) had a significantly higher proportion of sperm motility and sperm viability compared with those frozen without cryoprotectants ($P < 0.01$). In addition, this study showed DNA integrity had significant difference between groups ($P < 0.05$). Conclusion: In vitro Myo-inositol supplementation of cryo-preserved ejaculate sperm, from infertile men, resulted in a significant enhancement of post-thaw sperm quality. Such finding is interesting, and may have important implications on the future outcome of assisted reproductive techniques using cryopreserved sperm.

کلمات کلیدی:

Myo-Inositol, DNA Damage, Sperm Parameters, Cryopreservation

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/۹۵۰۴۰۷>