عنوان مقاله:

Improveing semen cryopreservation of roosters through oral administration of chrysin

محل انتشار:

سومین کنگره بین‌المللی تولیدمثل (سال: 1396)

تعداد صفحات اصل مقاله: 1

نویسندگان:

Porya Roknabadi - *Department of Animal Science, College of Agriculture and Natural Resources, University of Tehran, Karaj ۳۱۵۸۷-۷۷۸۷۱, Iran*

Mahdi Zhandi - *Department of Animal Science, College of Agriculture and Natural Resources, University of Tehran, Karaj ۳۱۵۸۷-۷۷۸۷۱, Iran*

Ahmad Zare Shaneh - *Department of Animal Science, College of Agriculture and Natural Resources, University of Tehran, Karaj ۳۱۵۸۷-۷۷۸۷۱, Iran*

Mahdi Ansari - *Department of Animal Science, College of Agriculture and Natural Resources, University of Tehran, Karaj ۳۱۵۸۷-۷۷۸۷۱, Iran*

خلاصه مقاله:

Background: There are many documents to show in vitro effects of antioxidants on sperm freezing process, but few studies have focused on oral administration of antioxidants and their effects on sperm recovery rate post cryopreservation. This study was conducted to investigate the effect of Chrysin (C) oral administration on sperm freezing process in rooster.Methods: Twenty 40-week-old Ross 308 broiler breeder roosters were randomly divided into four groups. Roosters in each group received 0 (C-0), 25 (C-25), 50 (C-50) or 75 (C-75) mg chrysin/day for 11 successive weeks. Semen samples were weekly collected from 5th to 11th week of experiment to evaluate post-thawed sperm quality parameters (total and progressive motility, plasma membrane integrity and functionality, and mitochondrial activity, from 5th to 8th week) and fertility (from 9th to 11th week) by artificial insemination.Result: The results showed that chrysin had significant effect on sperm total motility, plasma membrane integrity and functionality, and fertility. Total motility was significantly higher in C-75 compared to C-0 group. Plasma membrane integrity was significantly higher in C-50 compared to C-0 and C-25 groups. Plasma membrane functionality was significantly higher in C-50 and C-75 groups compared to C-0 and C-25 groups. Also, fertility rate was significantly higher in C-25, C-50 and C-75 groups compared to C-0 group. Difference in fertility rate between C-25, C-50 and C-75 groups was not significant.Conclusion: In conclusion, it seems that chrysin may improve post-thawed sperm quality parameters .and fertility via dose dependent and independent ways, respectively

کلمات کلیدی:

Freezing, Mitochondria, Motility, Oral administration, Rooster, Sperm, Fertility