Topic: Preimplantation Genetic Screening

Title: ALTERING THE MINERALS OF MATERNAL NUTRITION CAN AFFECT THE NEWBORNS SEX PRESELECTION

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There are several methods have been done for embryo sex preselection, such as X and Y sperm separation; changing the pH of the reproductive organs; time of mating before or after ovulation; and feeding formula, such as altering the minerals in diet content before breeding may affect the embryo sex preselection ratio. In this study three food formula to feed female sheep done by Arabian Agricultural Services Company ARASCO. First group (A) (10 sheep females) for male embryo gender preselection, by increasing the percentage of some minerals such as (Na^+ , K^+ and P-) more than food formula of control group (C).Second group (B) (10 females) for female sex preselection we increase the percent of some minerals such as(Ca^{++}, Mg^+) compare to the third control (C) group (10 sheep females), which feed the regular (wafi) food formula (table 1). Results shows that 7/ 10 in group (A) became pregnant which delivered 7 offspring. Their gender 6 males and 1 female (85.7 % male and 14.3 % female respectively). In (B)group also 7/10 ewes became pregnant and delivered 7 offspring, their gender were 6 females and 1 male (85.7 % female and 14.3 % male respectively). The control group (C) 9/10 ewes became pregnant and delivered 9 offspring, there gender were 5 male and 4 female born (55.6 % male and 44.4 % female respectively)(fig.1). The results of our studies improve that the altering the percent of mineral in diet of the mothers feeding has a role in sex preselection, which agree with other mammalian studies and in humen Noorlander et.al.(2010), by combination of maternal diet with timing of intercourse. So the result of this study may recomend more studies on the relationship between minerals in dite which can applide to human sex preselection.