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叶酸对动物卵母细胞质量的影响及其作用机制

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Effects of Folate on Oocytes Quality of Animals and Its Action Mechanism

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摘要 在雌性动物繁殖过程中，健康卵母细胞的形成是保证正常受精、胚胎发育以及有性生殖能力的物质基础。叶酸作为一碳单位载体参与DNA、RNA、蛋白质的合成，在配子形成、胎儿发育等细胞快速生长分化过程中必不可少。近年来，叶酸对卵母细胞质量影响的研究取得了一系列新进展，研究表明，叶酸可以通过促细胞分裂、抗氧化、促核酸合成和促甲基化反应等途径影响卵母细胞质量。本文就叶酸对动物卵母细胞质量的影响及其作用机制做一综述。

关键词： 叶酸 卵母细胞质量 促细胞分裂 抗氧化 核酸合成 甲基化

Abstract： In female reproduction, the formation of healthy oocytes is the material basis of normal fertilization, embryo development, as well as sexual reproduction. As a carrier of one-carbon units involved in the synthesis of DNA, RNA, and protein, folate is absolutely necessary in the process of cell growth and differentiation, such as the formation of gametes and fetal development etc. In recent years, researches found that folate influences oocytes quality through promoting cell division, antioxidation, nucleic acid synthesis and methylation reaction pathway etc. Here, the paper reviews the effects of folate on oocytes quality of animals and its action mechanism.

Keywords： folate, oocyte quality, promoting cell division, antioxidation, nucleic acid synthesis, methylation

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