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专论与综述

联会复合体——原发无精症发病中的重要角色

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摘要

联会复合体(synaptonemal complex，SC)是一种减数分裂特异性超分子蛋白质结构，与减数分裂I(改罗文)中同源染色体的凝缩、配对、重组和分离密切相关。近年来，联会复合体的研究取得了一系列重要的进展，包括在其组成成分和功能上的一些新发现。在小鼠不育模型中联会复合体及其编码基因的异常可引起精子发生障碍。更重要的是，联会复合体编码基因之一*SCP3*单个碱基缺失导致的无精症已在人类原发不育患者中得到证实。对联会复合体基因*SCP1*的进一步研究也正在进行之中。

关键词 联会复合体；减数分裂；原发无精症

分类号 R394

Synaptonemal Complex— ~~An~~ Essential Role in Etiology of Idiopathic Azoospermia

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Abstract

Synaptonemal complex (SC) which is a meiosis-specific supramolecular proteinaceous structure plays a crucial role in condensation, pairing, recombination and disjunction of homologous chromosomes at meiosis I. In recent years，a series of new developments on SC has been made, including new findings in both component and function of SC. Abnormities of SC resulting from genetic mutation can directly induce arrest of spermatogenesis in rat model. More importantly, in human male patients with non-obstructive infertility the fact that genetic variation of SC (e.g. <I>SCP3</I>) is the causative factor of idiopathic azoospermia had been confirmed, and the investigation of <I>SCP1</I> is under way.

Key words Synaptonemal complex (SC) meiosis idiopathic azoospermia

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