

題名:The association between male infertility and dioxin exposure.

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摘要:Endocrine disruptors (e.g., polychlorinated biphenyls [PCBs], dichlorodiphenyl-trichloroethane [DDT], dioxin, and some pesticides) are estrogen-like and anti-androgenic chemicals in the environment. They mimic natural hormones, inhibit the action of hormones, or alter the normal regulatory function of the endocrine system and have potential hazardous effects on male reproductive axis causing infertility. Although testicular and prostate cancers, abnormal sexual development, undescended testis, chronic inflammation, Sertoli-cell-only pattern, hypospadias, altered pituitary and thyroid gland functions are also observed, the available data are insufficient to deduce worldwide conclusions. The development of intra-cytoplasmic sperm injection (ICSI) is beyond doubt the most important recent breakthrough in the treatment of male infertility, but it does not necessarily treat the cause and may inadvertently pass on adverse genetic consequences. Many well-controlled clinical studies and basic scientific discoveries in the physiology, biochemistry, and molecular and cellular biology of the male reproductive system have helped in the identification of greater numbers of men with male factor problems. Newer tools for the detection of Y-chromosome deletions have further strengthened the hypothesis that the decline in male reproductive health and fertility may be related to the presence of certain toxic chemicals in the environment. Thus the etiology, diagnosis, and treatment of male factor infertility remain a real challenge. Clinicians should always attempt to identify the etiology of a possible

testicular toxicity, assess the degree of risk to the patient being evaluated for infertility, and initiate a plan to control and prevent exposure to others once an association between occupation/toxicant and infertility has been established.