

4 小 结

以一定剂量的 TCDD 对斑马鱼进行水浴染毒 5d 后,能引起受试斑马鱼肝脏总 MDA 含量增加,使 SOD 和 GST 活力降低,对斑马鱼具有脂质过氧化作用,导致机体受到过多氧自由基的攻击,从而造成相应的细胞毒性效应和损伤。

参 考 文 献

- [1] Poland A, Kuntze J K. 2,3,7,8-Tetrachlorodibenzo-p-dioxin and related halogenated aromatic hydrocarbons: the mechanism of toxicity [J]. *Ann Rev Pharmacol Toxicol*, 1982, 22(S1):1341.
- [2] Gray S A, Peters J B, Heideman W. 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) and early embryonic pituitary/hypophysial receptor-mediated and non-receptor mediated developmental toxicity: a CYP1A independent mechanism in zebrafish [J]. *Mol Pharmacol*, 2004, 66: 512-521.
- [3] Wang J, Li Y, Wang L, et al. Effect of TCDD on CYP1A activity in zebrafish (*Danio rerio*) [J]. *Chin Chem Lett*, 2007, 27(3): 121-128.
- [4] Dong W, Teraoka H, Tsujimoto Y, et al. Role of Aryl hydrocarbon receptor in mesencephalic circulation failure and apoptosis in zebrafish embryos exposed to 2,3,7,8-tetrachlorodibenzo-p-dioxin [J]. *Toxicological Sciences*, 2004, 77: 109-116.
- [5] Henry T R, Spitsbergen J M, Hornung M W, et al. Early life stage toxicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin in zebrafish (*Danio rerio*) [J]. *Toxicol Appl Pharmacol*, 1997, 142: 56-68.
- [6] Wu Q, Ohsako S, Baba T, et al. Effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) on preimplantation mouse embryos [J]. *Toxicology*, 2002, 174: 119-129.
- [7] 汤乃军, 刘云儒, 任大林. 2,3,7,8-四氯代二苯并二噁英对SD大鼠肝型CYP1A、GST、MDA影响的实验研究[J]. *中国职业医学杂志*, 2009, 16(6): 332-337.
- [8] 任大林, 刘云儒, 汤乃军. 2,3,7,8-四氯代二苯并二噁英对SD大鼠肝型CYP1A、GST、MDA影响的实验研究[J]. *中国职业医学杂志*, 2009, 16(3): 102-104.
- [9] 任大林, 刘云儒, 汤乃军. 2,3,7,8-四氯代二苯并二噁英对SD大鼠肝型CYP1A、GST、MDA影响的实验研究[J]. *中国职业医学杂志*, 2009, 16(3): 102-104.
- [10] Gray S A, Heideman R B, Gray J, et al. The effect of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) on oxidative enzyme activities and DNA [J]. *Toxicology*, 2002, 174(1-2): 117-125.