Low Dose of Oxaliplatin Combined Taxol Induced Endoplasmic Reticulum Stress Are Involved in the Apoptosis of A2780

HUANG Ling

(Jiai Hospital of Yongchuan District, Chongqing 402160, China)

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[Author]: Huang Ling (1969-), Deputy chief physician, M.M., Tel: 13509402363, E-mail: huangzhi187@yeah.net.

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View from specialist: It is creative, and of certain scientific and educational value.

[ABSTRACT] Objective: We explore the apoptosis mechanism of A2780 induced by low dose of oxaliplatin combined taxol. Method: The proliferation of A2780 was detected by MTT after the cells were incubated by low dose of oxaliplatin combined taxol. The expression of PERK, CHOP, Caspase 3 and 9 were detected by Real-time PCR and Western Blotting. Result: The inhibition rate of A2780 after incubated with oxaliplatin (1μM) and taxol (10μM) for 72h was 39.5%, which is higher than the other two groups (P<0.01). At the same time, the expression of PERK, CHOP, Caspase 3/9 were upregulated dramatically (P<0.01) in mRNA and protein levels when compared with the other two groups. Conclusion: Low dose of oxaliplatin combined taxol can inhibited the proliferation of A2780 by activating the endoplasmic reticulum stress and apoptosis pathway.

[KEY WORDS]: oxaliplatin; taxol; ovarian cancer; endoplasmic reticulum stress; apoptosis Chinese Library Classification (CLC)