

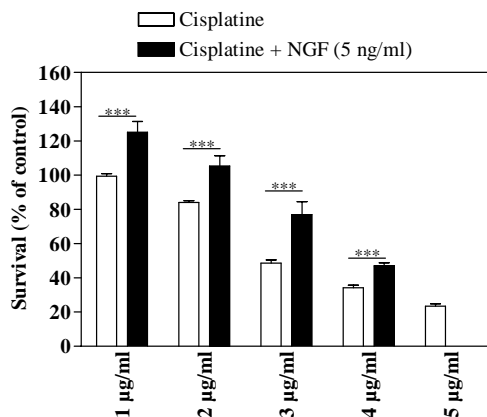
MODEL OF CHEMOTHERAPY-INDUCED NEUROPATHY IN PURIFIED CULTURE FROM SENSORY NEURONS

1. Introduction

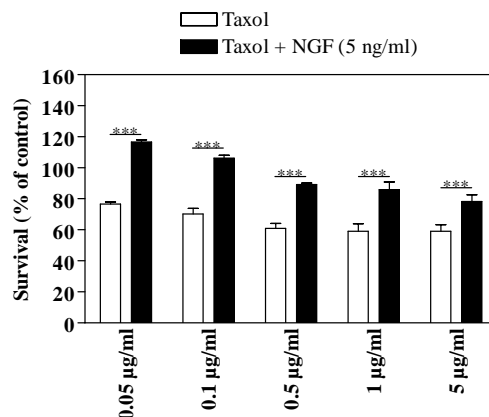
Cisplatin, vincristine and taxol are widely used as antimitotic drugs for treating various cancers. However, their employment is often limited by their neurotoxicity (Quasthoff et Hartung, 2002). Counteracting this side effect without affecting their anti-cancer activities is a promising developmental strategy.

2. Compound testing

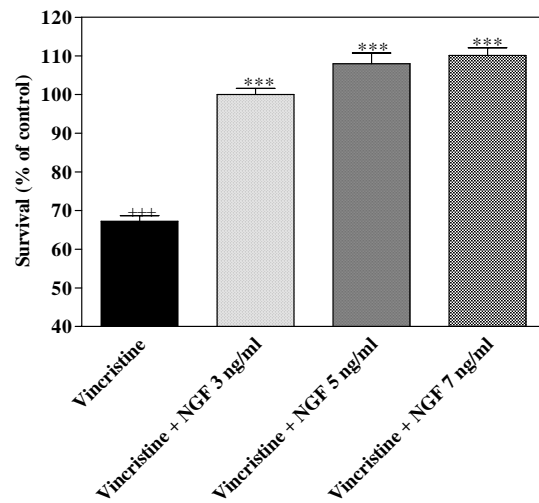
Purified cultures of sensory neurons are injured by chemotherapeutic drugs (cisplatin 3 $\mu\text{g}/\text{ml}$, vincristine 7.5 ng/ml or taxol 0.5 $\mu\text{g}/\text{ml}$). The aim of this study is to investigate the putative protective effect of tested compounds on this damage. Neuronal survival is assessed by measuring acid phosphatase activity after 48h exposure to injured drug and tested compound.



Cisplatin induced cell death in sensory neurons. At each dose of cisplatin, NGF at 5 ng/ml is able to protect neurons against the cisplatin damage.



Taxol induced sensory neurons death. NGF is able to protect sensory neurons against this injury.



Vincristine at 7.5 ng/ml induced a significant sensory neurons death, which could be counteracting by NGF.

3. References

Quatschoff S. and Hartung H.P. Chemotherapy-induced peripheral neuropathy. (2002). J. Neurol. 249:9-17.