A CASE OF NEUROPATHY DUE TO OCCUPATIONAL ORGANOPHOSPHATE PESTICIDE EXPOSURE

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INTRODUCTION

Organophosphate (OP) pesticides are known to carry risk for neurotoxic exposure. In this poster we report a detailed descriptions of pathological changes in a case of polyneuropathy patient with occupational exposure to OP and other insecticides.

CLINICAL FEATURES

A young adult, male with a clean medical history was diagnosed neuropathy who has worked as a grain spraying seasonal worker for three years. During this period, he was exposed to organophosphate (OP) and chlorpyrifos-ethyl insecticides. He had complaints such as leg weakness and paresthesia.

METHOD

Routine laboratory, radiologic and pesticide analysis were ordered. Routine laboratory test results were normal. EMG findings were as following; polyneuropathy at first examination, severe motor neuropathy at the second month, wide spread motor neuropathy at 4th year follow-up report. In motor examination upper extremity wrist muscle strength was 3/5, lower extremity proximal muscle strength was 3/5, distal muscle strength was 1-2/5 and deep tendon reflexes were hypoactive. His left eye was medial deviated in neutral position.

CONCLUSION

Occupational exposures to pesticide is very important in the etiology of central nervous system (CNS) disorders. Genetic factors may also affect clinical features. There are many studies in the literature assessing the relation between pesticide exposure and polyneuropathy. Precautions should be taken in order to eliminate the risk due to pesticide exposure in work places. In our case, multi exposure to pesticides seems to play a role in development of neuropathy. Further studies should be made by greater groups in order to illuminate the exact relation between pesticide exposure and CNS disorders.

Keywords: Neuropathy, Pesticide, Organophosphate