SUMMARY

- The effect of pesticides, dicofol and dichlorovos without and with 50mg/l of L-ascorbic acid and during the recovery of neurosecretory cells of cerebral ganglia of freshwater bivalve, Parreysia cylindrica was studied histologically and the observations were recorded.

- After chronic treatment of dicofol and dichlorovos, severe damages were found in the histomorphology of neurosecretory cells of cerebral ganglia.

- The neurosecretory cells of cerebral ganglia were severely damaged showing vacuolization, alteration in shape and size of nucleus and nucleolus, damaged chromatin material, neuropile, undulation of cell wall in the pesticide exposed bivalves.

- Intensity of damage of neurosecretory cells of pesticide exposed bivalves was found to be increased with increase in exposure period.

- After chronic treatment of dicofol and dichlorovos along with 50mg/l of L-ascorbic acid, the changes in the cytoarchitecture of neurosecretory cells were less severe as compared to the neurosecretory cells of those exposed to only pesticides.

- After 21 days exposure to pesticides, the ascorbic acid treated bivalves recovered faster with normal shape and size of neurosecretory cells as compared to those of normal water.