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NATURE OF INCLUSION BODIES OF A NUCLEAR POLYHEDROSIS VIRUS OF DIACRISIA OBLIQUA (WALKER)

Incidence of a nuclear polyhedrosis of D. obliqua was first reported by Jacob and Thomas (1972). Observations made on the size and shape of polyhedral inclusion bodies and their dissolution in certain alkalis are reported in this communication.

A finely purified suspension of polyhedra Was used in these studies. Diameter of polyhedra was determined from electron micrographs. The alkali solutions of NaOH (0.1 and 0.2 per cent), KOH (0.1 and 0.2 per cent) and Na2CO3 (5 and 10 per cent) were tested for their effects on the polyhedra. For these tests a drop of polyhedral suspension was put on clean microscopic slide, dried in the air and dipped in the alkali solution for varying periods. The slides were then examined under microscope for the presence or absence of polyhedra.

The polyhedra (Fig. 1) were irregular in shape, the diameter of 150 polyhedra observed ranging from 1.49µ to 3.43µ with a mean of 2.34µ. Treatment with 0.1 per cent NaOH or KOH dissolved the polyhedra in two minutes while at 0.2 per cent the polyhedra were dissolved in one minute. In solutions of 5 and 10 per cent Na2CO3 dissolution of polyhedra was achieved only after 35 and 30 minutes respectively. It is known that polyhedra from different nuclear polyhedroses differ greatly in their resistance to alkalis. (Day et al., 1953; Brown and Swaine, 1965). The present observations show that polyhedra of D. obliqua are relatively less resistant to alkali treatment than the others reported earlier and that treating glasswares and similar utensils with 0.2 per cent NaOH or KOH for few minutes would give effective sterilization.

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സംഗ്രഹം

ഡയാക്രിസിയുടെ ബാക്ടീരിയ rJ3a(??) എന്ന നീശാശലഭപ്പൂമ്പിൻ രോഗം ഉണ്ടാക്കുന്ന കോശകേന്ദ്ര ffiaJO\$Taf)T(Siru!orru!cro" (Nuclear polyhedrosis) വൈറസിൻ്റെ പോളിഹെഡ്രോൺ്റെ നിശ്ചിത ആകൃതിയോ വലിപ്പമോ ഇല്ല. അതിൻ്റെ വ്യാസം 1.49µ മുതൽ 3.43µ വരെ വ്യത്യസ്തപ്പെട്ട കണ്ടു. സോഡിയം ffisinrxsirLyofflo^cQJlaju^0, CTruosiOcru^o ഹൈഡ്രോക്സൈഡ് എന്നിവയുടെ 0.1 ശതമാനം വീര്യമുള്ള ലായനികളിൽ രണ്ടുമിനിട്ടുകൊണ്ടും, 0.2 ശതമാനം വീര്യമുള്ള ലായനികളിൽ ഒരു മിനിട്ടുകൊണ്ടും ഈ പോളിഹെഡ്രോൺ നിശേഷം raroej1sTOTti)GnjrTO. എന്നാൽ 5 ശതമാനവും 10 ശതമാനവും വീര്യമുള്ള സോഡിയം കാർബണേറ്റ് ലായനികളിൽ അലിയുവാൻ യഥാക്രമം 35, 30 മിനിട്ടുകൾ വേണ്ടിവന്നു.

A NUCLEAR POLYHEDROSIS VIRUS OF *DIACRISIA OBLIQUA* (WALKER)

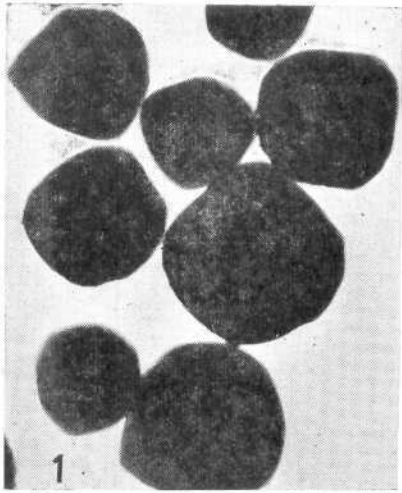


Fig. 1. Electron micrograph of polyhedra from *Diacrisia obliqua*, x 11325

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