

## **ABSTRACT**

The cytocidal effect of 3,6-bis-dimethylaminoacridine (A. O.) on *Theileria parva* — infected bovine lymphoblastoid cells was investigated by growing the cells in media containing varying concentrations of the drug for 24 to 48 hours or exposing them to 5 µg./ml. for 1 to 15 minutes. Cell growth was affected by as little as 0.01 µg./ml. A. O., while 2 µg./ml. in culture media killed all cells within 48 hours. Exposure of cells to 5 µg./ml. A. O. for even 1 minute was sufficient to cause fatal injury. In vivo studies in cattle experimentally infected with *T. parva* showed that A. O. at 2 or 5 mg./kg. could not prevent death in the diseased animals but the time from infection to appearance of piroplasms was longer in the treated than in the control animals.