This study was aimed to determine the potency of *Achyranthes aspera linn* alkaloid in the induction apoptosis of myeloma cells of mice. Myeloma cell cultures were added into 24 microwell plate contained 6 groups of test material i.e negative control, positive control (contained 100ppm colchicin) and *Achyranthes aspera linn* in 4 different concentration (1, 10, 100 and 1000 ppm). Myeloma cells underwent apoptosis were counted using etidium bromid and acridin orange staining under fluorescence microscope with 400x magnification. This study showed that apoptosis on mice induced by 10, 100, and 1000 ppm *Achyranthes aspera Linn* fraction were equivalent to that of by 100ppm colchichin.

**Key word**: *Achyranthes aspera linn*, apoptosis, myeloma cell.