ABSTRACT

C. cinerea (Bull) J. Schröt (Lyophyllaceae) is among the many edible mushrooms in Kenya and is also traditionally regarded as a complementary medicine for chronically-ill people. The use of these mushrooms in the East African prompted this investigation in which the phytochemistry and potential anti-cancer activity was studied. Chemical constituents of *C. cinerea* were isolated using chromatographic techniques and structures were determined using NMR spectroscopic methods. The NCI 60 human cancer cell line panel was used to evaluate the cytotoxicity of the compounds isolated at 10μM. Three triterpenes, ergosta-7,22-dien-3β-ol (1), 5α,6α-epoxyergosta-8(14),22-dien-3β,7α-diol (2) and ergosta-7,22-dien-3β,5α,6β,-triol (3) and pentacyclic triterpenoids β-amyrin (4) were isolated. The compounds were found to possess moderate toxicity against most of the cancer cell lines.

Keywords. Antiproliferative, clavulina cinerea, cytotoxic, ergostane, triterpenoids.