

Summary

Kota AG toxin is a new toxic metabolite of the mold, *Aspergillus glaucus*, isolated from a cooked glutinous rice specimen from the North-East of Thailand. Two forms of the toxin have been studied, a chloroform extracted fraction prepared from the mold cultured glutinous rice, and a petroleum ether-insoluble material prepared from the chloroform extracted fraction respectively. The LD₅₀ of these two preparations are 63 mg. per kilogram body weight intraperitoneally for the PEI material, and 0.26 ml. per rat orally for the CEX fraction. The PEI material is highly toxic to weanling rats by killing them within 2 to 3 hours after treatment. No specific pathological changes are observed in those rats except congestion in the livers. Histochemical observations show a slight decrease in the activity of the enzymes glucose-6-phosphatase and succinic dehydrogenase in the centrilobular cells, no change in the activity of the enzyme acid phosphatase.

The lesions observed in the CEX-treated rats of acute experiment are milder than those of LD₅₀ experiment which show renal tubular necrosis, fatty metamorphosis and rare focal necrosis of liver cells. Depletion of glycogen occurs in the periportal areas in the early stage of the experiment and returns to normal at the 96th hour after the administration of the toxin. Only one enzyme, succinic dehydrogenase, decreases in activity throughout the hepatic lobules. The other two enzymes, glucose-6-phosphatase and acid phosphatase, reveal no change in activities.

BIOGRAPHY

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