

The 6th Lecture on Food Risk Assessment “Risk Assessment of Mycotoxines” Toxicokinetics and Mode of Action of Mycotoxins

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< Summary >

Orally ingested xenobiotics, extrinsic small molecular weight lipid-soluble chemicals such as mycotoxins, are absorbed from digestive tract mucous membrane and distributed to whole body through blood stream. Substances absorbed from gastrointestinal tract flow into the liver. Then xenobiotics are transformed to water-soluble metabolites and excreted through urine or feces. In most toxic substances, their toxicities are reduced by drug-metabolizing enzymes (detoxication), however, drug-metabolizing enzymes produce active metabolite in some chemicals (metabolic activation). Furthermore, some mycotoxins in feeds are transferred to milk, egg or edible part of livestock.

In this review, absorption, distribution, biotransformation and excretion of mycotoxins in human and animals were overviewed. Mechanisms of action of mycotoxins were also discussed.