

A metabonomic evaluation of the balkan endemic nephropathy

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In collaboration with the Department of Nephrology of the Erasmus Hospital and the Department of Nephrology, Dialysis and Hypertension of the University of Zagreb, our laboratory is interested in a particular type of renal disease often associated with the development of urothelial carcinoma. Due to a specific geographical distribution, this disease was called Balkan Endemic Nephropathy (BEN). Although a contamination of cereals with ochratoxin A was initially incriminated, a food poisoning with aristolochic acids (AA) is now suspected. The source of those AAs is believed to be *Clematis Aristolochia*, a perennial plant that invades crop fields.

The AA poisoning was suggested when clinical and histopathological changes similar to those observed in BEN patients were reported in several cases of nephropathy (NAA) in Belgian female patients unintentionally exposed to AA during a diet based on Chinese herbs.

Using metabonomics, an emerging dynamic technique that allows an effective mapping of alterations in endogenous metabolites levels in biofluids and tissues, we evaluated early signs of AA's toxicity in a rat model of intoxication with AA as well as in patients suffering from BEN or NAA poisoning.

Biography

Jean-Marie Colet has completed his Ph.D. at the age of 28 years from the University of Mons and postdoctoral studies from the University of Texas in Dallas as well as from the King's College in London. He is currently Professor of Toxicology & Head of the Human Biology & Toxicology Laboratory at the University of Mons. He is the author or co-author of more than 25 papers in peer-reviewed journals.

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