Meetings International
SciTechnol

Joelle Nortier et al., J Nephrol Ren Dis 2018, Volume: 2
DOI: 10.4172/2576-3962-C1-002

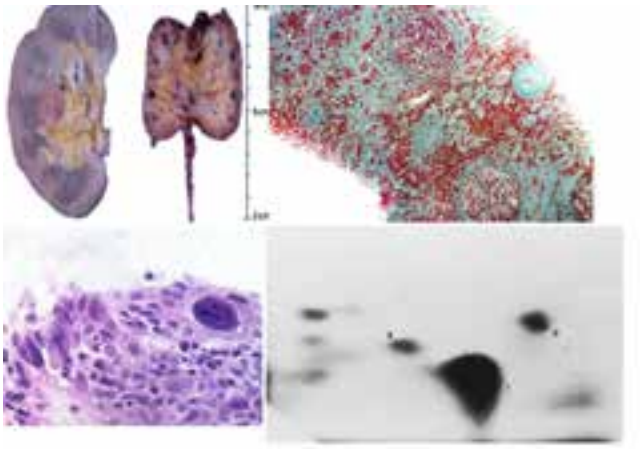
WORLD NEPHROLOGY CONGRESS

June 20-22, 2018 | Paris, France

Aristolochic acid nephropathy in Belgium: Update of clinical and experimental data

Joelle Nortier[1,2], Baudoux T[1,2], Decleves Ae[3], Antoine Mh[2], Broeders N[1] and **Vanherweghem Jl[1,2]**
[1]University libre de Bruxelles, Belgium
[2]University of Namur, Belgium
[3] University of Mons, Belgium

Aristolochic acid nephropathy (AAN) is a rapidly progressive interstitial nephritis leading to end-stage kidney disease (ESKD) and urothelial malignancy. It was originally reported in Belgium in more than 100 individuals having ingested slimming pills containing powdered root extracts of a Chinese herb, *Aristolochia fangchi*. Seventy-five patients have been treated in our dept. Among them, 50 out of 57 (F/M ratio 56/1) received a kidney transplant for ESKT; 21 presented with urothelial carcinoma of the upper tract (invasive in 2 cases) or the bladder (3 cystectomies required), leading to 5 deaths. Four additional kidney recipients developed cancer of the digestive tract, one a brain lymphoma and 8 lethal cardiovascular or infectious complications. Among the 7 patients still followed for chronic kidney disease (CKD), a left nephro-ureterectomy had to be performed for pelvic carcinoma. One case of metastatic urothelial carcinoma was diagnosed without concomitant CKD. The causal link with the intake of pills containing AA was demonstrated by the detection of DNA adducts specific to AA metabolites in renal tissue samples. Experimentally, rodent models of AAN have been developed in order to investigate the pathophysiology of AA induced tubulotoxicity and renal fibrosis. An early phase of acute tubular necrosis triggers a massive interstitial inflammatory cell influx involved in the onset and progression of collagen deposition and renal dysfunction. Moreover, microvasculature injury and imbalance between endothelial vasoactive agents could contribute to the rarefaction of peritubular capillaries and hypoxia. Such animal models of AAN are useful tools in studying mechanisms of AKI-to-CKD transition.



Biography

Joelle Nortier received the PhD degree in experimental nephrology from the Université libre de Bruxelles (ULB), Brussels, Belgium, in 1997. As a nephrologist and researcher, she aims to develop translational projects in relation with natural and synthetic nephrotoxic agents (*in vitro* and *in vivo* models) as well as strategies of renal protection. She has published more than 100 papers in reputed peer-reviewed journals. She is currently teaching pharmacology at the Faculty of Medicine, ULB, Brussels, Belgium.

Joelle.Nortier@erasme.ulb.ac.be

Notes: