Gelatin tannate for treating acute gastroenteritis

Xavier Llop Rupérez
Novintethical Pharma Sagl, Lugano, Switzerland

In their review of gelatin tannate (GT) Ruszczyński et al [1] extensively explain tannic acid (TA) activity and they may give the impression that TA is responsible for the mechanism of action of GT and also responsible for the possible adverse effects of the product. Various in vivo studies have demonstrated that GT is a stable complex not dissociated in the small intestine. Therefore any reference to the TA, in this case, is not justified.

L. Bueno has presented at the 21st UEG Week 2013 in Berlin[2] a review of the in-vitro studies regarding the mechanism of action of GT and the results of his own in-vivo investigations confirming that there is no dissociation of GT.

Indeed, the in-vivo studies performed to confirm the mechanical film forming activity of the stable complex between gelatin and TA have been done by Bueno et al in the prestigious center of INRA in Toulouse. The results of the study showed that 6 h after LPS injection, both jejunal TJ permeability and MPO activity were dramatically increased in rats. Oral pretreatment with GT reduced the jejunal increase of permeability by 78.1%, whereas gelatin as well as TA did not affect it. The conclusion was that only the stable complex between gelatin and TA has the potential to form a biofilm and to offer the activity of GT [2].

The conclusions of in-vitro and in-vivo testing are that GT acts by mechanical protection of the mucosa and that the therapeutic activity of GT is linked exclusively to its undissociated form, the only one present at the intestinal level [2].

References
