

Editorial

Breath Tests

Breath tests have been used as a tool for the evaluation of intestinal flora, metabolic activity of the gut, of the liver and to explore several gastrointestinal functions by means of the administration of a labeled substrate per os. The hydrogen based breath tests allow us to study the intestinal flora and the intestinal absorption. The ^{13}C -breath tests are used to investigate the liver function studying the metabolism of labeled substrate after the ingestion. In particular, molecules that have a rate limiting metabolic step in the liver such as methacetin, aminopyrine, ketoisocaproic acid, methionine, are the most useful to explore liver function. We can explore particular function of the liver (microsomal, cytosolic and mitochondrial) and even a single cytochrome.

The availability of breath test analysis is increasing because they are simple to perform, relatively unexpensive (in particular, when a mass spectrometer is available as often is in Gastroenterology Units) and safe (even in children and in pregnant women). However, some pitfalls or drawbacks, in particular the absence of a standard evaluation of results have avoided a larger use of breath tests in clinical practice. Breath tests for evaluate liver function are, at now, used only in specialized Gastroenterology Units.

The real question is now to spread the experience of expert groups to standardize the techniques and to improve our knowledges.

We organized this meeting with this aim.

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