Test for oral tolerance to triglycerides in humans

The Instituto de la Grasa of CSIC and University of Seville have developed a fast and simple procedure to evaluate the tolerance to dietary fats (triglycerides) in humans. A novel emulsified composition, easy to take and digest, is supplied to patients, and then the peak of triglycerides in blood and their clearance are determined in a short period of 4 hours.

Companies interested in exploiting this technology under a patent license are sought.

An offer for patent licensing

Quick test for oral fat overload

Fat intolerance is associated to high postprandial plasma triglyceride concentrations, which is considered a cardiovascular risk factor. The present technology is proposed to assess that cardiovascular risk.

The proposed procedure involves the use of an emulsified composition of saturated fat in water, which is orally administered according to the patient body surface. This composition shows a monomodal behavior (the droplets of the disperse phase have a uniform size) and is stable over the time.

The use of the emulsified composition described above makes possible to achieve the peak of triglycerides in blood within two hours and an effective triglyceride clearance during four hours. These time values are much lower than those provided by the methods used so far.

Main innovations and advantages

- The proposed procedure is useful to evaluate the oral tolerance to triglyceride in a quick and easy way.
- It can be used to identify anomalies in the acute metabolism of triglyceride-rich lipoproteins in response to a high-fat challenge, which may be associated with cardiovascular pathologies.
- The emulsified composition used in the procedure has a monomodal behavior, is stable over the time and provides an easy and comfortable ingestion, even in people with difficulties in swallowing.
- Using this procedure it is possible to halve the time to reach the peak of triglycerides in blood after ingestion of the emulsion. Likewise the fat clearance time can be halved.

Patent Status
Spanish patent granted

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