Implication of gut microbiota in nonalcoholic fatty liver disease

Submitted by Jérôme Boursier on Mon, 06/22/2015 - 20:03

Titre: Implication of gut microbiota in nonalcoholic fatty liver disease
Type de publication: Article de revue
Auteur: Boursier, Jérôme [1], Diehl, Anna Mae [2]
Pays: Etats-Unis
Editeur: Public Library of Science
Ville: San Francisco
Type: Article scientifique dans une revue à comité de lecture
Année: 2015
Langue: Anglais
Date: 27/01/2015
Numéro: 1
Pagination: e1004559
Volume: 11
Titre de la revue: PLoS Pathogens
ISSN: 1553-7374
Mots-clés: gut bacteria [3], liver fibrosis [4], metabolic disorders [5], nonalcoholic steatosis [6], Obesity [7]

Résumé en anglais:
It is now well established that gut flora and chronic liver diseases are closely interrelated. This association is most evident at late stages of the disease: cirrhosis and impaired liver function are associated with intestinal bacterial overgrowth, small bowel dysmotility, increased gut permeability, and decreased immunological defenses, all of which promote bacterial translocation from the gut to the systemic circulation, leading to infections that in turn aggravate liver dysfunction in a vicious circle [1]. For a long time, the implication of gut flora in the pathophysiology of less advanced chronic liver diseases has been underestimated because technical limitations allow only for the culture of a small fraction of gut bacteria. Recent technological progress and next-generation DNA sequencing have allowed for more sophisticated analysis and sampling of the gut microbiota by culture-independent methods [2]. Thanks to these recent technological advances, knowledge about the role of gut microbiota disruption (dysbiosis) in gut diseases such as colon cancer, inflammatory bowel diseases, and irritable bowel syndrome has greatly increased, with possible new therapeutic strategies. More surprisingly, gut dysbiosis has been implicated in chronic metabolic disorders such as obesity, metabolic syndrome, diabetes, and cardiovascular diseases [3]. Nonalcoholic fatty liver disease (NAFLD) is the liver manifestation of the metabolic syndrome and thus evolves in the same context as these metabolic diseases [4]. It is therefore not surprising that recent literature emphasizes a potential role for gut dysbiosis in the pathophysiology of NAFLD. [...]
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[1] http://okina.univ-angers.fr/jerome.boursier/publications
[2] http://okina.univ-angers.fr/publications?f%5Bauthor%5D=7397
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Publié sur Okina (http://okina.univ-angers.fr)