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Case Control Study

Response of gut microbiota to serum metabolome changes ¹³in intrahepatic cholestasis of pregnant patients

Li GH *et al.* Gut microbiota changes of ICP

Guo-Hua Li, Shi-Jia Huang, Xiang Li, Xiao-Song Liu, Qiao-Ling Du

²⁸
Abstract

BACKGROUND

Intrahepatic cholestasis in pregnancy (ICP) is the most common liver disease during pregnancy, and its exact etiology and course of progression are still poorly understood.

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Gut Microbiota and Host Reaction in Liver Diseases

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5023261>

1. Introduction. Human microbiota is estimated to contain as many as 10¹⁴ bacterial cells, which is a number 10 times greater than the human cells present in our bodies [1,2]. Above all, the gastrointestinal tract is the most heavily colonized organ for these microorganisms [1,2]. The human gut microbiota is dominated by the Bacteroidetes and the Firmicutes, whereas Proteobacteria ...

Cited by: 16

Author: Hiroshi Fukui

Publish Year: 2015

Diet-induced changes in maternal gut microbiota and ...

<https://www.nature.com/articles/srep20683>

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Cited by: 1 **Author:** Chunhao Zhao, Jun Ge, Xia Li, Ruifen Jiao,...

Publish Year: 2020

Serum Metabolomic Profiling in Acute Alcoholic Hepatitis ...

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4252257>

While levels of most **serum** bile acids were elevated in **patients** with severe AAH, levels of two **gut microbiota**-derived moieties, deoxycholate and glycodeoxycholate, were decreased. Additionally, pronounced **changes** in enteric microbial benzoate handling were identified in **patients** with severe AAH.

Cited by: 27 **Author:** Vikrant Rachakonda, Charles Gabbert, Amit...

Publish Year: 2014

Diet-induced changes in maternal gut microbiota and ...

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4751613>

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Cited by: 122 **Author:** Heather A. Paul, Marc R. Bornhof, Hans J. ...

Publish Year: 2016

Oral iron supplementation: Potential implications for the ...

<https://onlinelibrary.wiley.com/doi/full/10.1111/hdi.12553>

Mar 22, 2017 · In contrast to earlier studies in IBD **patients**, 48-52 these shifts in the **gut** microbiome and **metabolome** were dissociated from **changes** in disease activity in these **patients**. 59 Interestingly, there is a trend toward the use of oral iron-based phosphate binders in CKD **patients**, in very large doses.

Cited by: 17 **Author:** Guus A. M. Kortman, Dorien Reijnders, Dori...

Publish Year: 2017

How strong is the evidence that gut microbiota composition ...

<https://www.sciencedirect.com/science/article/pii/S0021915020304913>

Sep 11, 2020 · The effects of fish oil on **gut microbiota** are not clearly elucidated and human studies are scarce, but some studies indicate that fish oil or other supplements containing long-chain polyunsaturated n-3 fatty acids, docosahexaenoic acid (DHA) and/or eicosapentaenoic acid (EPA), induce **changes** in **gut microbiota** .

Author: Victor Gerdes, Miguel Gueimonde, Lotta... **Publish Year:** 2020

Lactation during cholestasis: Role of ABC proteins in bile ...

<https://www.nature.com/articles/s41598-017-06315-8>

Intrahepatic cholestasis of pregnancy (ICP) is the most frequent pregnancy-specific liver disease 1.This reversible form of cholestasis is characterized by pruritus and elevated bile acid (BA ...

Maternal gut microbiota in pregnancy influences offspring ...

<https://science.sciencemag.org/content/367/6481/eaaw8429>

Feb 28, 2020 · Thus, the **gut microbiota** of **pregnant** mice provides an environmental cue that fine-tunes energy homeostasis in offspring to prevent the developmental origin of metabolic syndrome. ![Figure][3] During pregnancy, maternal **gut microbiota** influences offspring propensity for ...

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Intrahepatic cholestasis of pregnancy (ICP) can predispose offspring to metabolic disease in adulthood, likely due to a combination of the **effects of increased bile acids, maternal dyslipidemia** and...

Regulation of drug metabolism and toxicity by multiple ...

<https://www.sciencedirect.com/science/article/pii/S2211383516303999>

Mar 01, 2017 · An enhanced supply of bile acids coupled with reduced enterohepatic circulation predisposes **pregnant** women to develop **intrahepatic cholestasis**. Interestingly, in pregnancy, Aleksunes demonstrated a down-regulation of the fibroblast growth factor 15 (mice)/19 (human), an ileal endocrine factor that represses hepatic bile acid synthesis 19 .

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Characterization of Gut Microbiota Associated with Clinical Parameters in Intrahepatic Cholestasis of Pregnant Patients. ... the **changes** in human breast milk **metabolome** over the first month of ...

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