Reviewer's report

**Title:** The occurrence of Urinary Tract Infection before development of Primary Biliary Cirrhosis: a case control study.

**Version:** 1  **Date:** 10 March 2011

**Reviewer:** Dimitrios Bogdanos

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The report by Varyani et al determined whether urinary tract infections are more common in patients with primary biliary cirrhosis (PBC) prior to the diagnosis of the disease compared to controls with chronic liver disease. Their case control study is based on the UK General Practice Research Database (GPRD). These findings will help the ongoing debate as to whether urinary tract infection has a causal or casual relationship with this disease.

Their findings indicate that PBC is associated with UTI prior to diagnosis and that this association is stronger in younger PBC patients. Thus, it appears that in PBC patients before the age of 55, 31% had a prior diagnosis of UTI compared to 20% of age and sex matched controls.

The study is of interest. My view is that such methodological studies are needed to better understand the association of risk factors such as urinary tract infections or smoking with the development of PBC or other autoimmune liver diseases.

**Major point**

The Authors need to make clear that one of the limitation of their studies was that the control population of patients with chronic liver diseases was predominantly a population of male patients (60%) when that of PBC is strikingly a female population. Also, the control population with patients with chronic liver diseases was younger than that of PBC. These differences clearly affect the results given in cohorts not adjusted for age and sex as urinary tract infection is likely to be more frequent in older women.

**Minor Points**

The Authors need to give more details/brief description of the GPRD and a link to its website. The must also make clear in the abstract and methodology that GPRD is a UK database.


Page 13, Discussion 268 & 269, it is molecular mimicry ...instead of .... molecular mimickery
Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:
I declare that I have no competing interests