Bile formation is a delicate process. This is illustrated by inherited liver diseases caused by mutations affecting hepatocanalicular transporters. Effective treatment of these defects is a clinical and scientific challenge. Fibrates were first noted to reduce hepatic alkaline phosphatase (ALP) isoenzyme levels during their development as cholesterol-lowering agents in the 1970s, due to its effect on peroxisome proliferator activated receptor (PPARα).

**Aim of the Study:** Assess the effect of fenofibrates on pruritus and biochemical laboratory values in children with none-obstructive cholestatic liver diseases.

**METHODS**

A prospective pilot study. Included paediatric patients with none-obstructive cholestatic liver diseases, recruited from outpatient clinics. Patients were divided into 2 groups:

- Therapy group (T-group): Received UDCA, and Fenofibrate 10 mg/kg, once per day. This group included 23 patients.
- Control group (C-group): Received UDCA and included 30 patients. Informed consents were obtained, study was registered as a clinical trial.

**RESULTS**

There were no statistically significant differences in the baseline demographic and biochemical data between the two groups (P > 0.05).

After one month, the PGS showed statistically significant decrease by <1.5 x baseline in the T-group compared to the C-group (P < 0.02). After four months, there were statistically significant decrease in PGS and ALT levels <1.5 x baseline levels, AST, GGT and bile acid levels in favour of the T-group (P < 0.02, 0.047, 0.026 and 0.001 respectively).

**CONCLUSION**

The use of FF in combination with UDCA provided satisfactory clinical outcomes, which could be a promising adjuvant therapy. However, studies for longer duration with larger sample size is still needed.