allopurinol (ALLO) co-therapy. The current opinion is that hepatotoxicity is secondary to high red cell methylated metabolites (MMPR/MMP). However, many patients develop hepatotoxicity without high MMP levels. We report a series of patients who regardless of low MMP developed hepatotoxicity whilst on allopurinol co-therapy, 3 of which were TPMT heterozygotes.

**Aim** to determine outcomes of increasing the dose of Allopurinol from 100 to 200 mg in patients with hepatotoxicity to LDAA.

**Methods** Patient records and our IBD database were searched for patients on LDAA who developed hepatotoxicity whilst on LDAA (100 mg of ALLO). Liver function tests (LFTs), liver ultrasound, results and clinical outcomes were determined.

**Results** From the 2500 patients with IBD locally, 600 were exposed to thiopurines and 300 were on LDAA. Nine patients had sustained hepatotoxicity, 3 were TPMT heterozygotes. Seven of these patients responded fully to increased dose of ALLO to 200mg. Two had a suboptimal response (1 had PSC as a potential cause). All patients had asymptomatic abnormalities of LFTs, negative chronic liver screen from 2 who had ultrasound proven fatty liver disease without abnormal LFTs prior to LDAA. We observed that all patients had improvements in their LFTs, whilst 7 had complete correction of abnormal AST, ALP and bilirubin. Median time for treatment was 24 months (range 12–48 months), with full response to therapy in all 7 patients.

**Conclusion** This is the first series which reports improvement of LFTs by increasing ALLO dose for patients on LDAA. This subgroup of patients were unlikely to have high MMPR as 3 of them were TPMT heterozygotes and all were on LDAA therapy, therefore a different mechanism, of hepatotoxicity is proposed (Figure 1). It is possible that reactive oxygen species generated from the oxidation of metformipurine are responsible, and this can be further improved by adjusting the dose of ALLO. Further studies are required.

**REFERENCES**


Disclosure of Interest None Declared.
Methods Patients were retrospectively identified at two hospitals in the UK and in Australia, using our local IBD databases. All pregnancies of co-therapy patients were included. TPMT activity and pre-pregnancy weight were used to calculate thiopurine dosing. Data regarding pregnancy and fetal outcomes were collected from patient notes.

Results Eleven females on co-therapy became pregnant, totalling twelve pregnancies with eight live births (Table 1) and four ongoing pregnancies. There were no reported terminations, miscarriages or spontaneous pre-term deliveries (<37 weeks). Four patients gave birth by spontaneous vaginal delivery (SVD); four by Caesarean section (C-section). There were no low birth weight (<2.5kg) babies. The Apgar scores of all babies were normal and no congenital malformations were identified either on fetal ultrasound scans or on neonate checks. The median duration of follow-up of babies was 6.5 months with no indication of morbidity.

Conclusion All twelve cases were treated successfully with co-therapy without any adverse pregnancy related events or adverse fetal outcomes. Intrauterine exposure of the fetus to thiopurine metabolites is not greater with combination therapy compared with thiopurine monotherapy. There are only two reports of congenital malformations with maternal allopurinol use. The case for an association based on two cases is weak, moreover a negative publication bias with respects to successful maternal allopurinol use is suspected. Our study provides support for clinicians and patients wishing to continue thiopurine-allopurinol co-therapy during pregnancy.

Disclosure of Interest None Declared.
PTU-106 Successful Pregnancies With Thiopurine-allopurinol Co-therapy For Inflammatory Bowel Disease
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