Background: Cardiovascular (CV) disease and cardiometabolic syndrome are common comorbidities/causes of mortality in patients (pts) with psoriatic arthritis (PsA). Tofacitinib is an oral JAK inhibitor for the treatment of PsA.

Objectives: To investigate changes in lipid levels and incidence of CV events in pts in phase 3 with tofacitinib in phase (P) 3 and long-term extension (LTE) studies.

Methods: Data were analysed for pts who received ≥1 dose of tofacitinib 5 or 10 mg BID or placebo (PBO), integrated across 2 P3 studies (OPAL Broaden [12 months; (m); NCT01877668, including adalimumab control; OPAO Beyond [6; NCT01828439]) and 1 LTE study (OPAL Balance [data cut-off May 2016; ongoing, database not locked; NCT01793684]). Lipid levels were asessed throughout P3 and LTE studies; this analysis included data from the PBO-controlled period (M0–3) of P3 studies. Blood pressure, hypertension events (standardised MedDRA query [narrow]) and adjudicated (independent blinded to treatment) major adverse cardiovascular events (MACE) are reported for all pts who received ≥1 dose of tofacitinib (pooled across doses for hypertension and MACE). Incidence rates (IR; pts with events/100 pt-years [PY]) and 95% CI are reported.

Results: Overall, 783 pts (776 PY of tofacitinib exposure) were included in P3 and LTE studies; treatment duration was 1–927 days. After 3 m of tofacitinib treatment in P3 studies, dose-dependent increases in lipid levels were observed with tofacitinib; minimal changes were observed with PBO, except for triglycerides (figure 1). Concurrent increases in high-density and low-density lipoprotein (HDL/LDL) and no change in the total cholesterol/HDL ratio were shown. Across P3 and LTE studies, no clinically significant changes in mean systolic or diastolic blood pressure were seen to 24 m. Hypertension events were reported in 38 (4.9%) pts: IR 4.93 [95% CI 3.49, 6.77]. Of these events, 4 led to pt discontinuation and 2 were serious adverse events. MACE were reported for 3 (0.4%) pts receiving tofacitinib (IR 0.38 [95% CI 0.08, 1.11]) and included sudden cardiac death (57 days), myocardial infarction (197 days) and ischaemic stroke (80 days). This is within the range reported in tofacitinib studies in pts with psoriasis (IR 0.24 [95% CI 0.15, 0.37]; 8,759 PY of exposure) and rheumatoid arthritis (RA) (IR 0.38 [95% CI 0.30, 0.47]; 21,286 PY of exposure). No dose-dependent effects on blood pressure were apparent.

Conclusions: In pts with PsA, the magnitude and dose dependency of increases in lipid levels to M3 were consistent with findings in tofacitinib studies in pts with psoriasis and RA. In P3 and LTE studies, no clinically significant changes were seen in blood pressure or incidence of hypertension. Incidence of MACE was within the range reported in prior tofacitinib studies in psoriasis and RA; however, the long latency of MACE requires longer-term observation.

Disclosure of Interest: None declared