Assessment of health-related quality of life and patient reported outcomes with tofacitinib treatment stratified by age in patients from the OCTAVE ulcerative colitis clinical program

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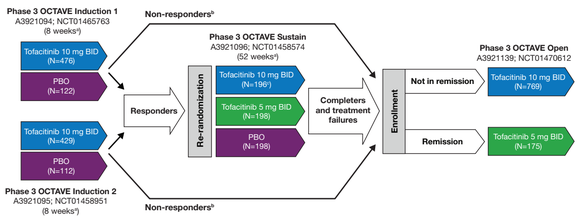
Introduction

- Tofacitinib is an oral small molecule Janus kinase inhibitor for the treatment of UC
- Consistent with previous studies in patients with IBD and the general population, an age-related increased risk of safety events was seen in the tofacitinib OCTAVE UC clinical program.[1] Tofacitinib demonstrated greater efficacy than PBO across all age groups;[1] however, health-related quality of life has not yet been evaluated in these cohorts

Objective

- To further understand the relationship between age and the risk/benefit of tofacitinib, this post hoc analysis assessed health-related quality of life and patient-reported outcomes stratified by age among patients enrolled in the tofacitinib OCTAVE UC clinical program (**Figure 1**)

Figure 1. Overview of the tofacitinib OCTAVE UC clinical program



[a]Final complete efficacy assessment at Week 8/52. Treatment continued up to Week 9/53
[b]Non-responders from OCTAVE Induction 1 and 2 received tofacitinib 10 mg BID in OCTAVE Open
[c]N=196 for patients who received tofacitinib 10 mg BID in OCTAVE Sustain because one patient was randomized but did not receive the study treatment
N, number of patients treated

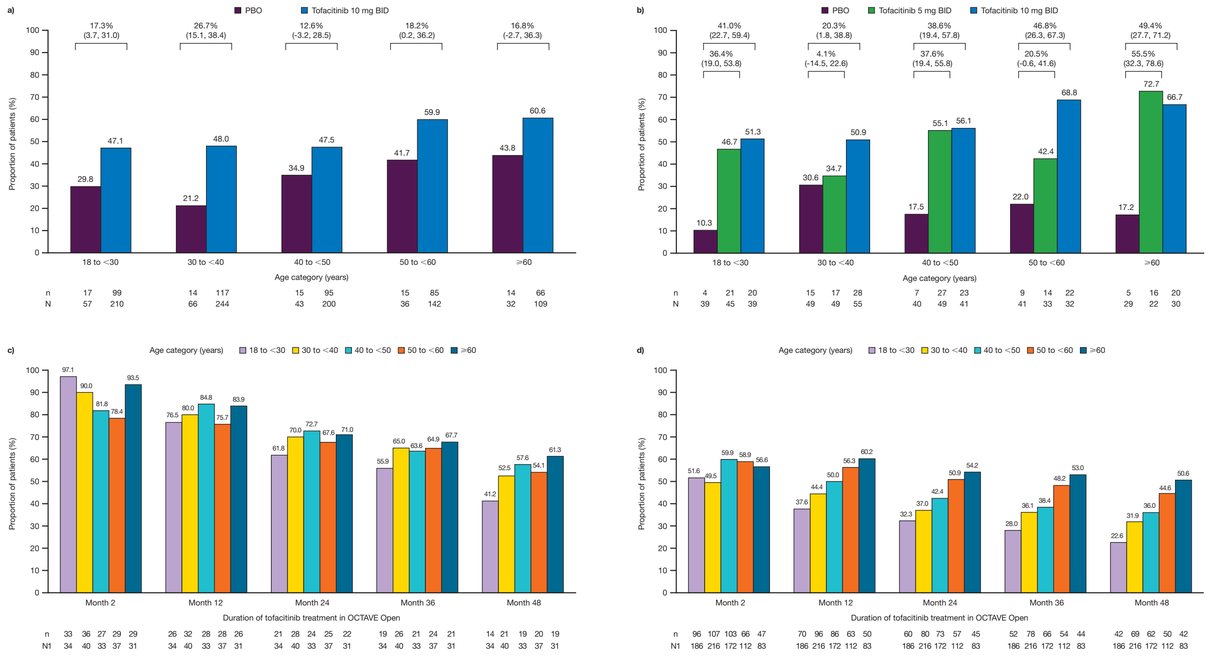
Methods

- Data up to Week 8 of the Phase 3 induction studies (OCTAVE Induction 1 and 2), Week 52 of the Phase 3 maintenance study (OCTAVE Sustain), and Month 48 of the OLE study (OCTAVE Open) were analyzed
- Proportions of patients with an IBDQ total score ≥170 and mean changes from induction study baseline in the Mayo SFS and RBS, stratified by age, were evaluated
  - IBDQ remission is defined as an IBDQ total score ≥170; previous studies have shown that this generally corresponds to clinical remission[2]

Results

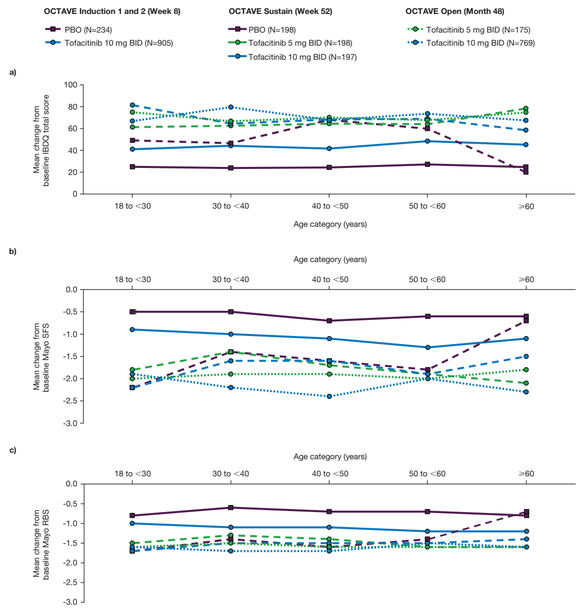
- The age distribution of patients who enrolled in the OCTAVE UC clinical program was generally similar across the studies and treatment groups[1]
- In OCTAVE Induction 1 and 2 and OCTAVE Sustain, the proportions of patients who received tofacitinib treatment and who had an IBDQ total score ≥170 were generally higher than those who received PBO, regardless of age (**Figure 2a–b**)
- In OCTAVE Open:
  - The proportions of patients who received tofacitinib 5 mg BID and with an IBDQ total score ≥170 were generally similar within each timepoint among the age groups (**Figure 2c**)
  - A trend was observed where higher proportions of patients who received tofacitinib 10 mg BID achieved an IBDQ total score ≥170 as age increased (**Figure 2d**)
- As shown in **Figure 3**, observed data from the tofacitinib OCTAVE UC clinical program demonstrated that:
  - In OCTAVE Induction 1 and 2, patients who received tofacitinib 10 mg BID had a greater mean change from OCTAVE Induction 1 and 2 baseline IBDQ total score and Mayo SFS and RBS compared with PBO, regardless of age
  - In OCTAVE Sustain, there was generally no consistent trend for mean changes from OCTAVE Induction 1 and 2 baseline in IBDQ total score and Mayo SFS and RBS across age groups, and the mean changes from baseline OCTAVE Induction 1 and 2 were generally similar between patients who received PBO and tofacitinib in most subgroups
  - In OCTAVE Open, there was generally no consistent trend for mean change from OCTAVE Induction 1 and 2 baseline in IBDQ total score and Mayo SFS among age groups, and similar mean changes from OCTAVE Induction 1 and 2 baseline in Mayo RBS were observed across age groups among tofacitinib-treated patients

Figure 2. Proportions of patients with an IBDQ total score ≥170 among patients at a) Week 8 of OCTAVE Induction 1 and 2[a] and b) Week 52 of OCTAVE Sustain,[a] and in the c) tofacitinib 5 mg BID[b] and d) tofacitinib 10 mg BID[b] groups in OCTAVE Open, stratified by age



Values above brackets show the treatment difference from PBO (95% CI)
[a]Non-responder imputation for missing data
[b]Non-responder imputation for missing data at all visits but last observation carried forward for visits after a patient advanced to next study
n, number of patients with the specified response within the given category; N, number of patients in the analysis set; N1, number of patients who, based on their enrollment dates and last non-missing IBDQ total score, could have reached the specified timepoint by the end of the study

Figure 3. Mean change from OCTAVE Induction 1 and 2 baseline in a) IBDQ total score, b) Mayo SFS, and c) Mayo RBS across studies, stratified by age (FAS, observed)



N, total number of patients

Limitations

- This analysis was limited by the small number of patients in each age group
- These post hoc clinical trial data may not be fully generalizable to clinical practice

Conclusions

- **Patients receiving tofacitinib generally demonstrated efficacy vs PBO for achieving IBDQ remission and any improvements in PROs were generally similar, regardless of age**

Abbreviations

BID, twice daily; **CI**, confidence interval; **FAS**, full analysis set; **IBD**, inflammatory bowel disease; **IBDQ**, Inflammatory Bowel Disease Questionnaire; **OLE**, open-label, long-term extension; **PBO**, placebo; **PRO**, patient-reported outcome; **RBS**, rectal bleeding subscore; **SFS**, stool frequency subscore; **UC**, ulcerative colitis.

References

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3. DeTora LM et al. Ann Intern Med 2022; 175: 1298-1304.

Endpoint definitions

Clinical response was defined as a decrease from induction study baseline total Mayo score of ≥3 points and ≥30%, plus a decrease in RBS of ≥1 point or an absolute RBS of 0 or 1.
Remission was defined as a total Mayo score of ≤2 with no individual subscore >1, and an RBS of 0.

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Disclosure of interests

MC Dubinsky, L Biedermann, and DT Rubin have received consultancy fees from Pfizer Inc. A Hart has received consultancy fees, payment for lectures, and has been an advisory board member for Pfizer. J Panés reports personal fees and has received grant support from Pfizer Inc. M Fellmann and S Gardiner are employees and stockholders of Pfizer Inc. J Paulissen is an employee of Syneos Health, which was a paid contractor to Pfizer in connection with the development of this manuscript and related statistical analysis. MA Almadi has no disclosures to declare.

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