OBJECTIVES

Assess the relative efficacy and safety of ustekinumab compared to anti-TNF-alpha therapies in patients with active psoriatic arthritis.

METHODS

- **PICOS**
  - Participants: patients with active psoriatic arthritis treated with ustekinumab or anti-TNF-alpha therapies and had not received biological treatment before.
  - Intervention: ustekinumab (UST) or infliximab (INF), adalimumab (ADA), golimumab (GOL), etanercept (ETA), abatacept (ABA), certolizumab pegol (CZP), tocilizumab (TCZ).
  - Comparator: placebo (PLC).
  - Outcomes: ACR20, ACR50, ACR70, PASI75, HAQ-DI, AE and SAE endpoints at week 24.
  - Study design: randomized, double-blind, placebo-controlled trials.

- **Search strategy**
  - Literature search was conducted in PubMed (1966 to 2014 April) and Cochrane library (1980 to 2014 April) databases with the following key words in various combinations: ustekinumab, infliximab, adalimumab, golimumab, etanercept, certolizumab pegol, tocilizumab, anti-TNF-alpha, psoriatic arthritis, psoriatic arthritis, psoriasis, arthritis, randomized controlled trial, controlled clinical trial.

- **Risk of bias**
  - Risk of bias was evaluated using the Cochrane criteria.

- **Data synthesis and analysis**
  - A meta-analysis was performed using BioEpi software.

- **Sensitivity analysis**
  - Indirect comparisons and random effect methods were used.

- **Publication bias**
  - Publication bias was assessed using the funnel plot.

RESULTS

- **Similarity searches**
  - A total of 308 publications were identified. 226 records were excluded after screening. 48 records were assessed in detail and 29 trials were included.

- **Applicability**
  - Applicability was assessed using the Cochrane criteria.

- **Risk of bias**
  - The risk of bias was assessed using the Cochrane criteria.

- **Data synthesis and analysis**
  - A meta-analysis was performed using BioEpi software.

- **Sensitivity analysis**
  - Indirect comparisons and random effect methods were used.

- **Publication bias**
  - Publication bias was assessed using the funnel plot.

CONCLUSION

Based on our evaluation the anti-TNF-alpha treatments appear more effective than ustekinumab in the first-line biological treatment of psoriatic arthritis.

References


8. Heszti Z, Avó M, Szabó I, et al. RELATIVE EFFICACY AND SAFETY OF USTEKINUMAB COMPARED TO ANTI-TNF-ALPHA THERAPIES IN PATIENTS WITH ACTIVE PSORIATIC ARTHRITIS

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Figure 1 ACR20 (week 24)

Figure 2 ACR50 (week 24)

Table 1: Indirect comparisons (ARC, 20, 50, 70)

Table 2: Applicability

Table 3: Adverse events (week 24)

Table 4: Serious adverse events (week 24)

Figure 3 Adverse events (week 24)

Figure 4 Serious adverse events (week 24)

Table 5: Indirect comparisons (ARC, SAE, AE)

ADVERSE EVENTS

During the study comparisons we did not find a substantial difference between these treatments. (All week 24: PASISS: anti-TNF-alpha vs. placebo: OR=0.90 (0.75-1.10), ACR70, PASI50, placebo: OR=0.79 (0.61-1.02), anti-TNF-alpha vs. placebo: OR=0.88 (0.70-1.10), ACR50, PASI50, placebo: OR=0.92 (0.75-1.12)). On the other hand, anti-TNF-alpha treatments showed significantly better results on HAQ-DI at week 24, however, anti-TNF-alpha therapies had significantly better results on ACR20 week 24 (anti-TNF-alpha vs. placebo: OR=2.93 (1.85-4.63), ACR50 week 24: anti-TNF-alpha vs. placebo: OR=1.22 (1.04-1.43), ACR70 week 24: anti-TNF-alpha vs. placebo: OR=0.79 (0.61-1.04), ACR50 week 24: anti-TNF-alpha vs. placebo: OR=0.90 (0.75-1.10)).