TREATMENT EFFECT OF TUMOR NECROSIS FACTOR \alpha\ INHIBITORS ON MAGNETIC RESONANCE IMAGING PROGRESSION IN PATIENTS WITH SPONDYLOARTHRITIS: A META-ANALYSIS

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Background: Treatment effect of tumor necrosis factor \alpha\ inhibitors (TNFi) in patients with spondyloarthritis (SpA) had been proved by plenty of studies that could remarkably eliminate symptoms, signs, and laboratory inflammatory manifestations. Simultaneously, the treatment effect of TNFi on delaying radiographic progression in SpA was often reported in double-blind phase trials. Two reviewers independently selected studies, extracted data, and assessed the methodology quality of included trials. Sensitivity analysis was performed to test the result robustness. The funnel plot of SPARCC score at SIJ based on TNFi was consistent among disease subgroups and individual TNFi.

Objectives: A meta-analysis was performed to summarize the treatment effect of TNFi on MRI progression reflected by SPARCC score in SpA patients.

Methods: Comprehensive search was conducted in the electronic databases of OVID Medline, OVID EMBASE and Cochrane library on November 27, 2018. All randomized controlled trials (RCTs) focused on MRI progression and disease activity in SpA patients treated with TNFi were included. Primary outcome was the Spondyloarthritis Research Consortium of Canada (SPARC) MRI scoring system, accompanied with or without other outcomes, including Ankylosing Spondylitis Disease Activity Score (ASDAS), Bath Ankylosing Spondylitis disease activity index (BASDAI), Bath Ankylosing Spondylitis functional index (BASFI), C-reactive protein (CRP). Data were pooled by mean differences (MD) with 95% confidence intervals (CI) and publication bias was assessed by funnel plot. Sensitivity analysis was performed to test the result robustness. Jadad scale was applied to assess the methodology quality of included trials. Two reviewers independently selected studies, extracted data, and assessed study quality.

Results: Totally 10 RCTs enrolled 1006 patients with high methodology were included. Compared with control group, TNFi significantly improved SPARCC score at sacroiliac joint (SIJ) (MD=2.84, 95% CI 2.43-3.25), SPARCC score of spine (MD=1.87, 95% CI 1.27-2.48), ASDAS (MD=0.96, 95% CI 0.71-1.20), BASDAI (MD=1.15, 95% CI 0.51-1.76), BASFI (MD=0.95, 95% CI 0.51-1.40) and CRP (MD=4.64, 95% CI 1.06-8.23) in double-blind phase. Subgroup analyses by disease subgroup and individual TNFi showed treatment effect of TNFi on delaying MRI progression was not affected by disease subgroup and individual TNFi. Sensitivity analysis showed the treatment effects of TNFi versus placebo were consistent with TNFi versus controls, suggesting the results of the study were robust. The funnel plot of SPARCC score at SIJ based on TNFi versus control in double-blind phase was asymmetric, suggesting there might have potential publication bias.

Conclusion: TNFi are effective to treat SpA patients and delay MRI progression which are assessed by SPARCC score and treatment effect is consistent among disease subgroups and individual TNFi.

REFERENCES


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INFLAMMATORY BOWEL DISEASES AMONG SECUKINUMAB-TREATED PATIENTS: FIRST RESULTS OF THE MISSIL REGISTRY

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Background: Interleukin 17 (IL17) blockade is a therapeutic alternative for patients who are Tumor Necrosis Factor inhibitor-Inadequate Responders. However, in randomized controlled trials, cases of de novo inflammatory bowel diseases (IBD) have been reported in patients treated by IL17 inhibitors. Objectives: To describe patients treated by IL 17 inhibitors developing new onset IBD (Crohn’s disease and ulcerative colitis).

Methods: A French national registry called MISSIL was started in February 2018 to collect the cases of these patients. This registry is conducted by rheumatologist, dermatologist and gastroenterologist learned societies specialized on immune-mediated inflammatory diseases (IMID). In France, secukinumab has been granted market authorization in June 2016 and ixekizumab in April 2018.

Results: 12 cases were reported between February and December 2018: 11 patients with new onset IBD, 2 patients with pre-existing IBD and 1 patient with ulcerative colitis. Mean age was 51 ± 14.3 years old and 8/12 were female. 6 presented an axial spondyloarthritis, 3 a peripheral spondyloarthritis and 3 both. 9/10 were HLA-B27 positive. 4/10 have a radiographic sacroiliitis and 3/10 a MRI sacroiliitis. Only one was biological Disease-modifying antirheumatic drug (bDMARD)-naive. Crohn’s disease was mainly localized at the ileum, colon and rectum. The mean time to onset of symptoms was 4.9 ± 5.6 months. The main symptoms were diarrhoea, nausea and vomiting and loss of weight. Median CRP at the onset of symptoms was 107 mg/L (66.5-200.7). 9 patients underwent biopsies. 5 were in favour of Crohn’s disease. All IL17 inhibitors were consistently stopped. Patients were treated by corticosteroids (9/12), mesalazine (3/12), methotrexate (2/12), infliximab (1/12), adalimumab (3/12), golimumab (1/12), ustekinumab (3/12). The evolution was favourable under treatment with healing (5/12), improvement (4/12) or stabilization (1/12). One patient worsened under treatment and one died (massive myocardial infarction).

Conclusion: IBD under IL 17 inhibitors are rare and lead to discuss the potential iatrogenic role of IL 17 inhibitor drugs. Further cases and case control studies are needed to better characterize this complication and identify patients at risk to develop IBD under IL 17 inhibitor.

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