

P21: Risk of infection in rheumatoid arthritis patients treated with TNF- α antagonists: a systematic review

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Introduction: Rheumatoid arthritis is an autoimmune disease characterized by chronic joint inflammation that leads to the destruction of cartilage and bone. Because it is an autoimmune disease, immunosuppressive therapy has shown to be the most effective and the widely used in this pathology. Tumor necrosis factor (TNF) antagonists are immunosuppressive drugs of the class of biological disease-modifying antirheumatic drugs, which have been increasingly used for the treatment of rheumatoid arthritis due to their therapeutic benefits. These drugs act directly on the innate and adaptive immune response. However, since they are immunosuppressive drugs, they may increase the risk of opportunistic infection.

Objectives: The objective of this study was to evaluate the relationship between the treatment with TNF-antagonists and an increased risk of infection, in patients with rheumatoid arthritis, through a systemic literature review.

Materials and Methods: A comprehensive electronic literature search was conducted in *Pubmed* database to identify all studies published from 2005 to 2015, with the following mesh terms: "rheumatoid arthritis", "bacterial infection" and "tumor necrosis factor alpha". Two reviewers independently screened all abstracts, followed by the full text of potential articles to evaluate eligibility. Study methodological quality was evaluated using Oxford quality scoring system.

Results and Discussion: Of the studies identified from our literature search, twelve met eligibility criteria. From these eight showed a positive relationship between TNF-antagonists and an increased risk of infection. Contrariwise, four studies suggested that infection risk was independent of TNF-antagonist's exposure. Nevertheless some studies were limited by a small number of patients and outcomes were evaluated with different follow-up times.

Conclusion: Available literature supports an association between an increased risk of infections in patients under treatment with TNF-antagonists. However and since methodologic procedures are not alike, is necessary to undergo larger studies with normalized methodology to clearly prove this relationship.

References

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