Therapeutic drug monitoring of infliximab in patients with rheumatic diseases versus optimization of treatments based on clinical response

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Background and objective

Individual clinical response to antiTNF therapy can be influenced by their pharmacokinetics and immunogenicity, so therapeutic monitoring of drug levels (TDM) can guide the biologic treatments.

The objetive of this study was to evaluate the concordance of dose setting based on clinical response and serum infliximab trough levels (SITLs), as well as, anti-drug antibodies (ADA). Analysis of the utility of TDM to guide dose setting.

Setting and Method

Study

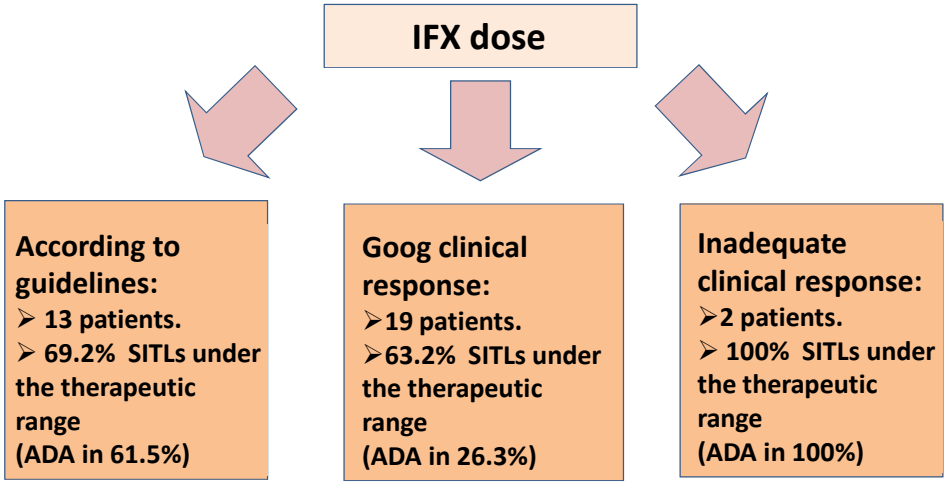
- Prospective and descriptive study.
- Patients with rheumatic diseases treated with infliximab. Informed voluntary consent .
- Analysis of serum infliximab concentration obtained in routine infliximab monitoring.
- Clinical information: patients medical records.

Method

- Dose schemes were established according to an index of clinical response (DAS28, BASDAI…).
- SITLs and ADA were measured by Elisa (Promonitor®).
- Therapeutic range: 2.5-9 mcg/mL.
- ADA presence was considered as a therapeutic failure indicator.

Results

- 34 patients were included with median age of 57 years: Range [30-83].
- Infliximab standard dose according to clinical guidelines: 3 mg/Kg or 5 mg/Kg every 8 weeks for rheumatoid arthritis or other diseases, respectively .
- Good clinical response: Dose decrease or interval elongation had been implemented.
- Increasing the dose or shorten the interval in inadequate clinical response .



Conclusion

Although optimization based on clinical response of biologic treatments in patients with rheumatic diseases can reduce the therapy costs is not always an effective strategy,since a high percentage of patients with SITLs under the therapeutic range and ADAs was found. TDM of infliximab and ADA is a tool to individualize infliximab treatments.