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Background and importance

Therapeutic drug monitoring (TDM) is known to optimize clinical results in inflammatory bowel disease (IBD) patients on anti-tumour necrosis factor (TNF) drugs. Nevertheless, the influence of several patient factors on these drug levels is not well-established yet.

Aim and objectives

To identify anthropometric, demographic and therapeutic variables that influence anti-TNF drug serum concentrations.

Material and methods

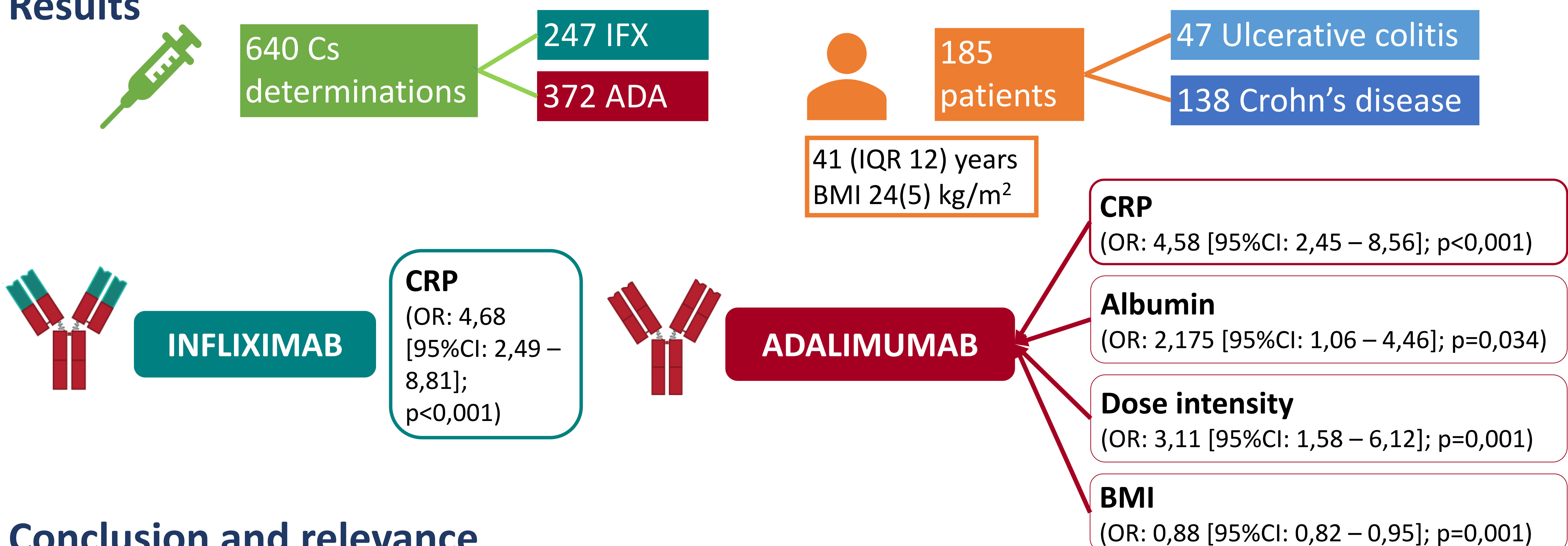
- Retrospective observational descriptive study conducted at a tertiary hospital, from 2016 to 2019.
- IBD patients with infliximab (IFX) and adalimumab (ADA) trough steady-state serum concentration (Cs; ELISA, Promonitor[®], Grifols) were included

<u>Explanatory variables:</u>		Clinical	Therapeutic
		Anthropometric Body mass index (BMI)	Albumin Hemoglobin Leucocytes
Demographic Age Sex	C-reactive Protein (CRP): <5mg/L vs ≥5mg/L.	Anti-drug antibodies	
	Diagnosis	Immunomodulatory treatment	
		Anti-TNF treatment line (first vs second and beyond)	

Outcome variables: anti-TNF Cs: therapeutic (ADA Cs≥8mcg/ml, IFX Cs≥3,5mcg/ml) vs non therapeutic.

Statistical analysis: Univariate analysis was performed to identify variables that may affect Cs, using independent samples T-test (continuous variables) or Chi-square test (categorical variables). Logistic regression was performed to quantify influence of explanatory variables on Cs.

Results



Conclusion and relevance

- ✓ High levels of albumin and intensified ADA dose increase the probability of achieving ADA therapeutic Cs, while high BMI decreases this probability.
- ✓ Therapeutic Cs are related with higher CRP levels both for ADA and IFX.
- ✓ As dose intensity seems to be relevant in order to achieve therapeutic Cs, established ADA fixed dosing may be reconsidered into tailored dosing.

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