

NETWORK META-ANALYSIS OF THERAPEUTIC ALTERNATIVES FOR MODERATE TO SEVERE ULCERATIVE COLITIS

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¹Cordero-Ramos J; ²Gil-Sierra MD; ³Martínez-Suárez A; ⁴Amaro-Álvarez L

¹Pharmaceutical Management Servicio Extremeño Salud; ²Pharmacy Department Hospital Puerto Real; ³Pharmacy Department Hospital Son Espases; ⁴Pharmacy Department, Hospital Virgen Macarena Sevilla; Spain



Background and importance

Moderate-to-severe ulcerative colitis (UC) can be treated with several therapeutic alternatives. Recently, new drugs has been evaluated in this disease.



Aim and objectives

To develop a network meta-analysis (NMA) to compare the efficacy of treatments formoderate-to-severe UC.



Material and methods

Scientific publications indexed in Pubmed were used to extract the data.

Inclusion criteria:

Pivotal randomised clinical trials (RCT) including recent drugs (filgotinib, ozanimod, tofacitinib, upadacitinib, ustekinumab and vedolizumab) in moderate-to-severe UC.

Exclusion criteria:

RCT without a comparator common (placebo).

✓ Efficacy endpoint selected was clinical remission according Full Mayo Score. Induction (week 6, 8 or 10) and maintenance (week 52, 48 or 60) results were analyzed.

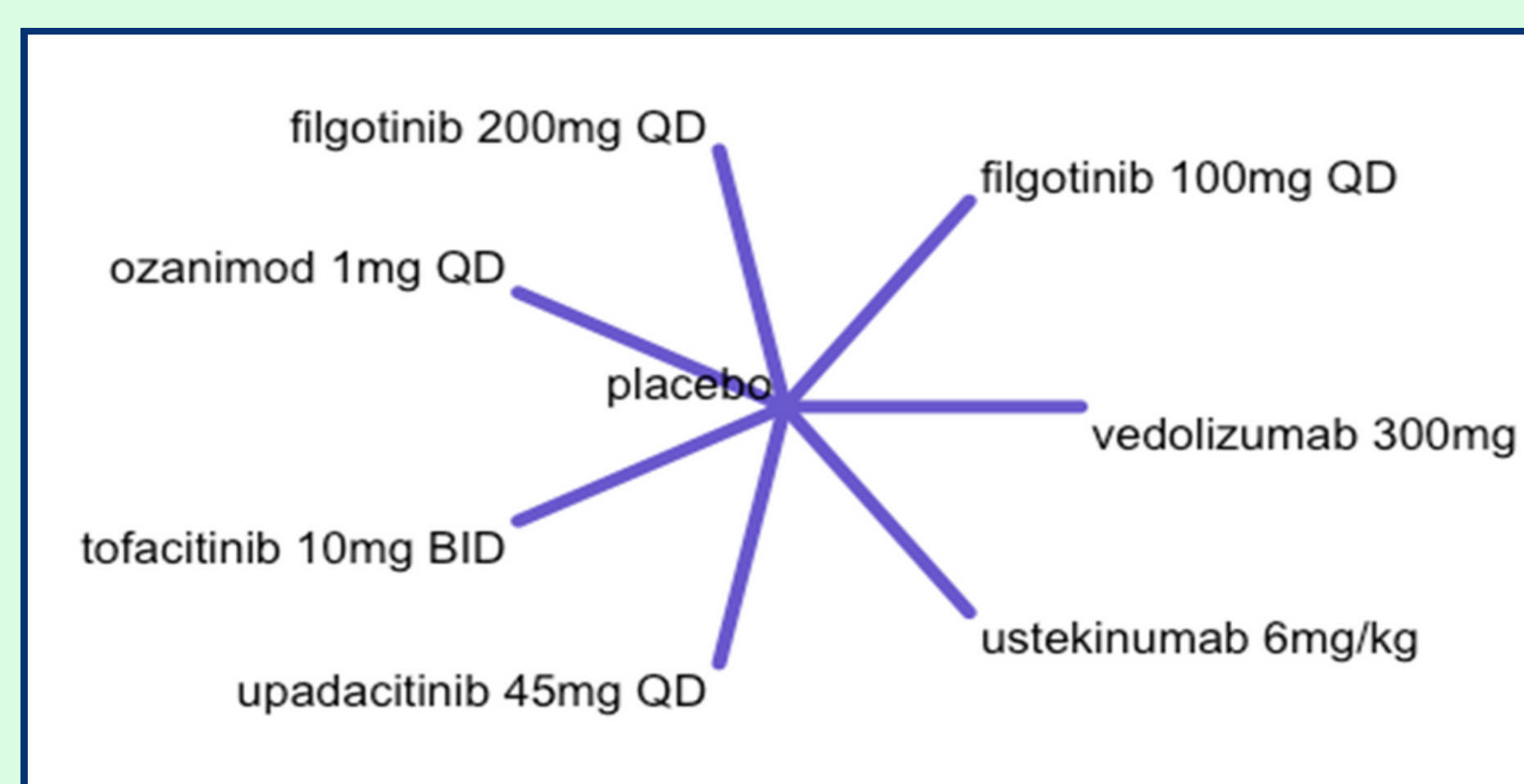
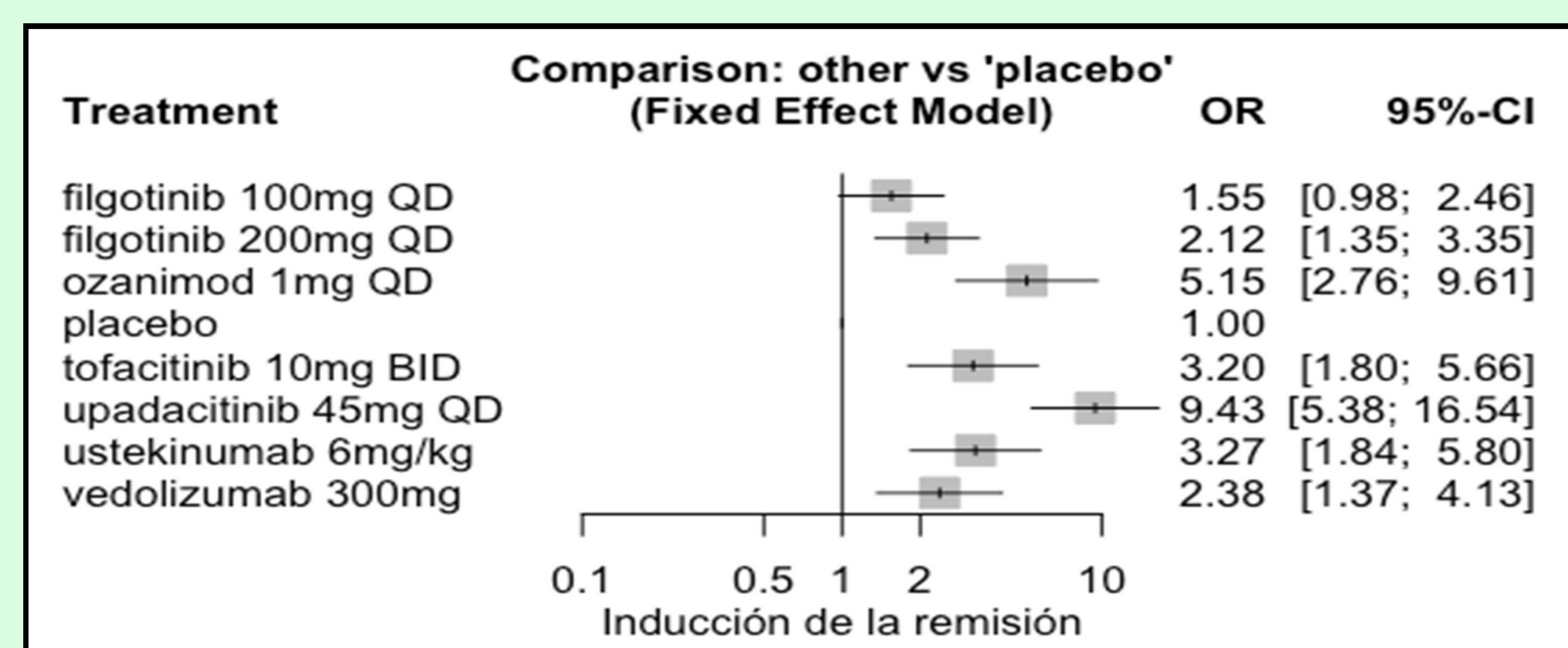
Relevant clinical characteristics of populations were considered: age, gender, disease duration and prior biologic use.

R v4.2.3 statistical software were used to performed the NMA.

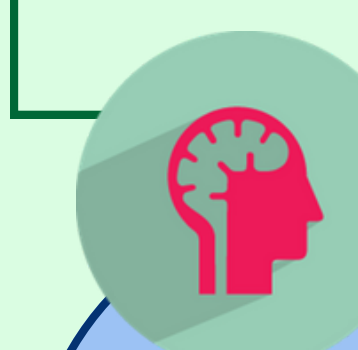
Odds ratio (OR) was calculated by bayesian methods and fixed effect model were assessed.



Results



				(years)	Female n (%)	Duration (years)	Biologic Use n (%)	up (weeks)
Feagan 2013	GEMINI 1 - NCT00783718	VDZ 300 mg (weeks 0-2)	Placebo	40.3±13.1	93 (41.3)	6.9±6.4	222 (42.6)	6
Motoya 2019	NCT02039505	VDZ 300 mg (weeks 0-2-6)	Placebo	42.9±15.2	92 (38.3)	8.3±7.1	125 (51.3)	10
Sands 2019	UNIFI - NCT02407236	UST 6 mg/kg	Placebo	41.7±13.6	249 (39.4)	8.1±7.5	327 (51.1)	8
Sandborn 2017	OCTAVE 1 - NCT01465763	TOFA 10 mg BID	Placebo	41.5±14.7	244 (40.8)	6.2 (0.4-39)**	319 (51.33)	8
Sandborn 2017	OCTAVE 2 - NCT01458951	TOFA 10 mg BID	Placebo	40.7±13.3	227 (36.9)	6.1 (0.4-33)**	299 (52.1)	8
Sandborn 2021	TRUE NORTH - NCT02435992	OZA 1 mg QD	Placebo	41.6±13.5	257 (39.8)	6.8±6.7	195 (30.2)	10
Feagan 2021	SELECTION - NCT02914522	FILGO 200/100 mg QD	Placebo	42±13,1 (FILGO100 mg)	120 (43.3%) (FILGO100 mg)	6.7 (7.4) (FILGO100 mg)	689 (51.1)	10
				42±13,3 (FILGO200 mg)	122 (49.8%) (FILGO200 mg)	7.2 (6.9) (FILGO200 mg)		
Vermeire 2021	U-ACCOMPLISH - NCT03653026	UPA 45 mg QD	Placebo	40±13.2	192 (37.2)	7.3±7.1	262 (50.9)	8
Danese 2021	U-ACHIEVE- NCT02819635	UPA 45 mg QD	Placebo	43±12.8	179 (37.9)	8.6±6.9	246 (52)	8



Conclusions

This NMA provided a review of efficacy of recent therapies for moderate-to-severe UC according to clinical remission.

- ✓ In induction, upadacitinib 45 mg and ozanimod 1 mg were the most effective schemes.
- ✓ In maintenance, similar benefit was observed with vedolizumab 108 mg subcutaneous, filgotinib 200 mg and upadacitinib 15 mg or 30 mg.

jaimed.cordero.sspa@juntadeandalucia.es