

## INTRODUCTION

Approximately 25% of subjects with papulopustular rosacea relapse after discontinuation of systemic therapy suggesting that long-term systemic therapy is required for certain populations.<sup>1</sup> Tetracyclines have utility for longer treatment periods to maintain control, particularly in more severe and recalcitrant rosacea presentations.<sup>2</sup> Doxycycline 40 mg (30 mg immediate-release, 10 mg delayed-release beads) is an Food and Drug Administration-approved oral therapy indicated to treat the inflammatory lesions of rosacea. A 2-phase, long-term study was conducted to assess the relapse rate, efficacy, and safety of doxycycline 40 mg (30 mg immediate-release, 10 mg delayed-release beads) vs placebo after an initial 12 week combination regimen of doxycycline 40 mg (30 mg immediate-release, 10 mg delayed-release beads) and metronidazole 1% gel in subjects with moderate to severe rosacea. The results of the 40 week phase 2 period are presented here.

## METHODS

### Study Design

- Multicenter, randomized, double-blind, placebo-controlled study
- Men and women, aged 18 years to 80 years who achieved an investigator global assessment (IGA) score of clear or near clear after 12 weeks of treatment with doxycycline 40 mg (30 mg immediate-release, 10 mg delayed-release beads) and metronidazole 1% gel
- Subjects randomized to either doxycycline 40 mg (30 mg immediate-release, 10 mg delayed-release beads) or placebo once daily for 40 weeks

### Assessments

- Relapse rate
  - Relapse occurred if IGA score or inflammatory lesion count returned to phase 1 baseline, or if the investigator determined that the subject warranted a change in rosacea therapy
- RosaQoL<sup>®</sup>
- Subject questionnaire

## RESULTS

One hundred and thirty subjects were eligible to be randomized and were included in phase 2 (65 in each treatment group). Most were white women with a mean age of 49.4 years (Table 1). Subjects treated with doxycycline 40 mg (30 mg immediate-release, 10 mg delayed-release beads) had significantly lower relapse rates than those treated with placebo from week 28 to the end of the study (14% vs 28%, respectively,  $P < .05$ ; Figure 1). Quality of life scores improved from phase 1 baseline more with doxycycline 40 mg (30 mg immediate-release, 10 mg delayed-release beads) compared to placebo (Figure 2). Subject satisfaction responses favored doxycycline 40 mg (30 mg immediate-release, 10 mg delayed-release beads) over placebo at week 40 (Figure 3). Twelve of 65 subjects reported 26 adverse events (AEs) in the doxycycline (30 mg immediate-release, 10 mg delayed-release beads) treatment group and 12 of 65 subjects reported 25 AEs in the placebo treatment group. Upper respiratory tract infection, nasopharyngitis, nausea, and gastroenteritis were the most common AEs; all were reported in less than 5% of subjects.

Table 1. Subject Demographics

	Doxycycline 40 mg MR (n=65)	Placebo (n=65)	Total (n=130)
Age (mean), y (SD)	47.2 (13.2)	51.7 (12.8)	49.4 (13.2)
Gender, n (%)			
Male	20 (30.8)	24 (36.9)	44 (33.8)
Female	45 (69.2)	41 (63.1)	86 (66.2)
Race, n (%) <sup>a</sup>			
White	63 (96.9)	63 (96.9)	126 (96.9)
Black or African American	0 (0.0)	1 (1.5)	1 (0.8)
Asian	1 (1.5)	0 (0.0)	1 (0.8)
Other or mixed	1 (1.5)	1 (1.5)	2 (1.5)
Fitzpatrick Skin Type, n (%)			
I	2 (3.1)	4 (6.2)	6 (4.6)
II	26 (40.0)	27 (41.5)	53 (40.8)
III	22 (33.8)	19 (29.2)	41 (31.5)
IV	11 (16.9)	12 (18.5)	23 (17.7)
V	4 (6.2)	3 (4.6)	7 (5.4)

<sup>a</sup>Values may not add up to 100% due to rounding  
y = years, SD = standard deviation

## REFERENCES

1. Powell FC. Clinical practice. Rosacea. *N Engl J Med.* 2005;352(8):793-803.
2. Gupta AK, Chaudhry MM. Rosacea and its management: an overview. *J Eur Acad Dermatol Venereol.* May 2005;19(3):273-285.

Figure 1. Relapse Rate

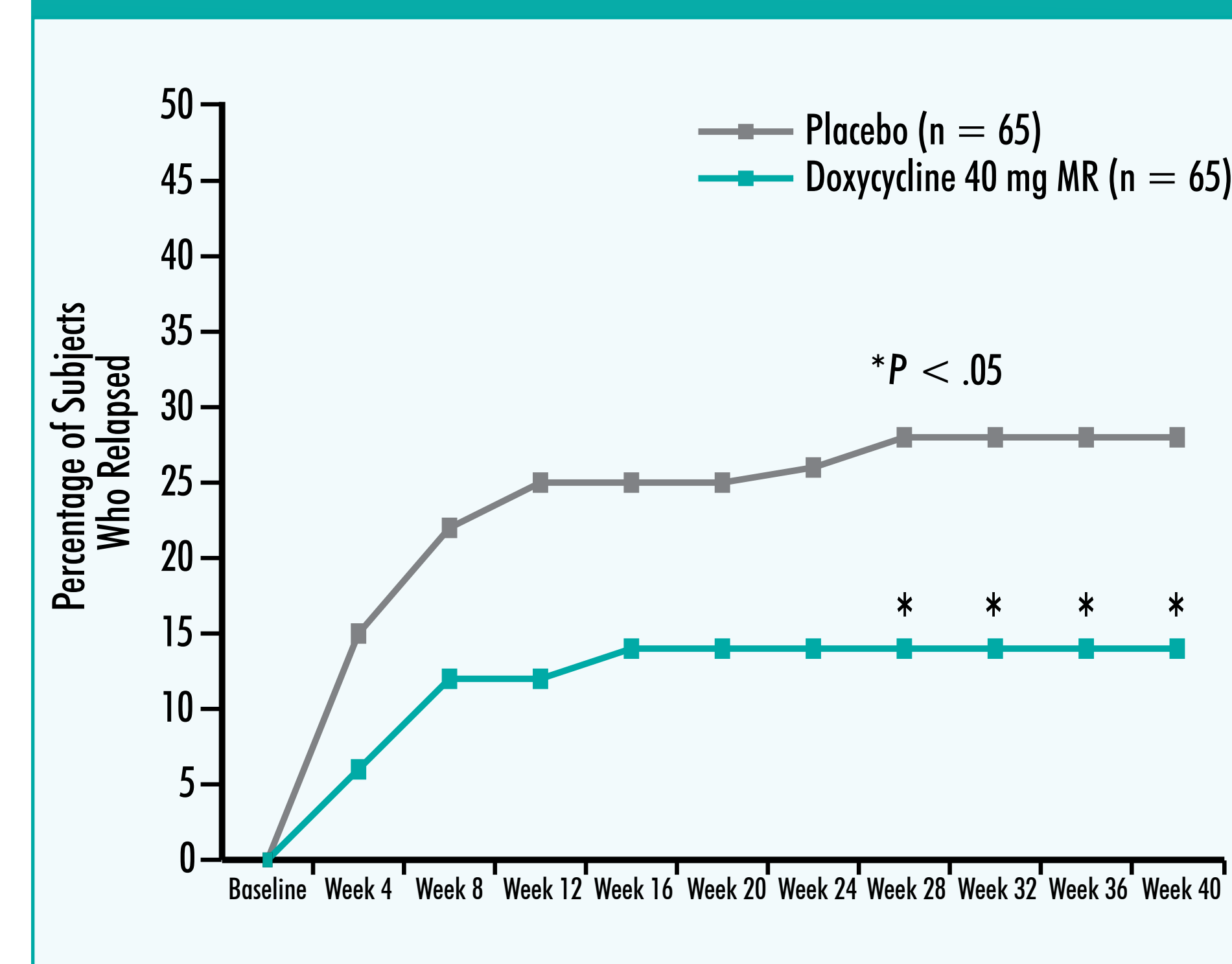
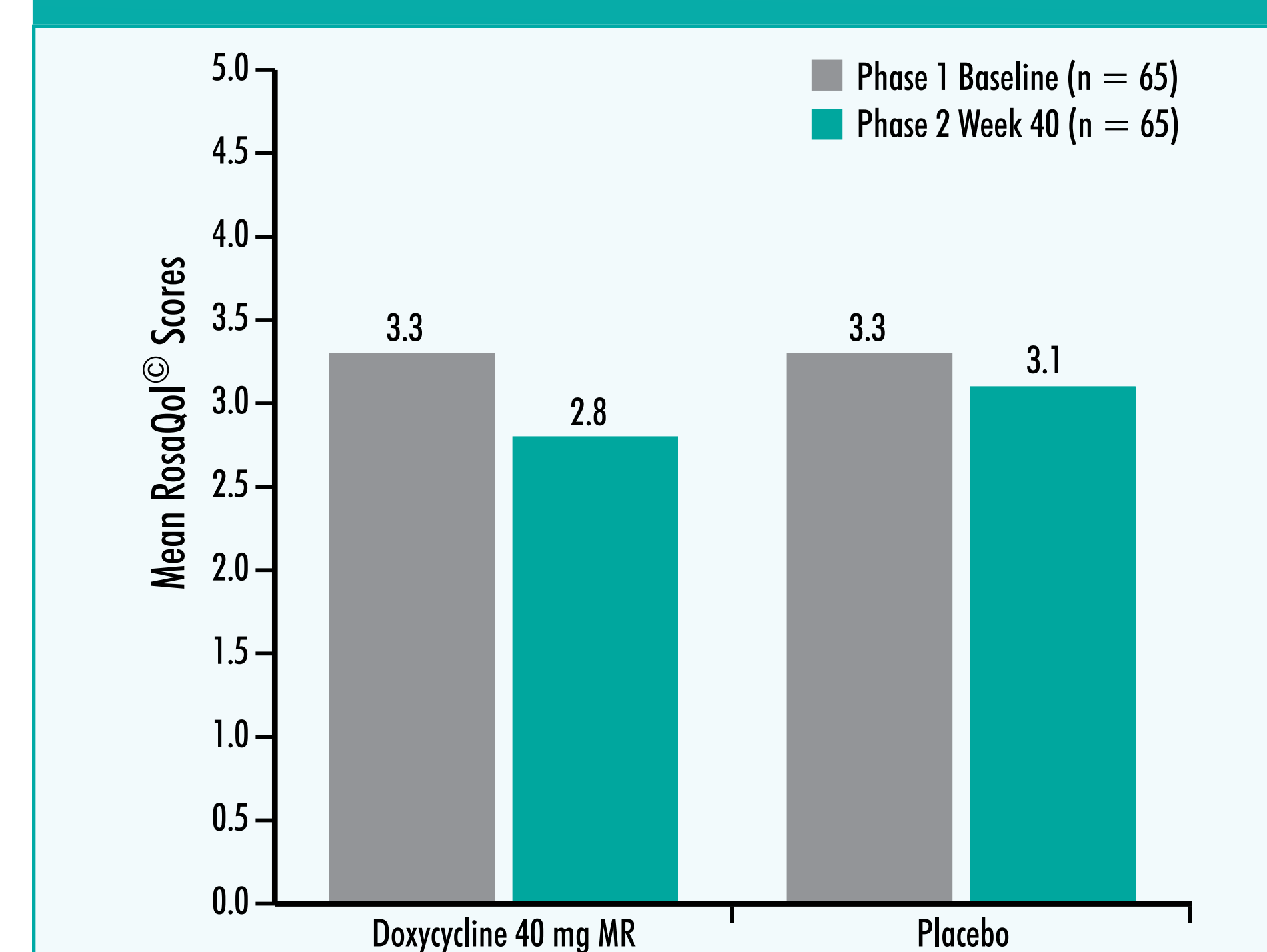


Figure 2. Improvements in Quality of Life Scores



## SUMMARY

- Doxycycline 40 mg (30 mg immediate-release, 10 mg delayed-release beads) treatment over 40 weeks in moderate to severe rosacea subjects successfully treated with 12 weeks of combination doxycycline 40 mg MR with metronidazole 1% gel resulted in a statistically significant reduction in relapse rate
- Relapse rate with doxycycline 40 mg (30 mg immediate-release, 10 mg delayed-release beads) was 14%, compared to 28% for placebo
- The placebo rate was similar to the relapse rate to tetracyclines (25%) quoted in the literature<sup>1</sup>
- No new safety or tolerability signals were noted in continuous use over 40 weeks of doxycycline 40 mg (30 mg immediate-release, 10 mg delayed-release beads)

Figure 3. Subject Satisfaction (at Week 40)

