

Metabolic stress in patients with acute severe ulcerative colitis: a single-center cohort study

P082-W

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Background & Aim

- Acute severe ulcerative colitis (ASUC) is characterized by **systemic inflammation**, which may lead to **hypercatabolism**.
- Patients with ASUC usually receive **high-dose steroids** that may accelerate the **metabolic response** and lead to **hyperglycaemia** and **insulin resistance**, but the degree of **synergy** is unknown.
- We aimed to **measure levels of metabolic stress**, including **insulin resistance**, during **admission (baseline)** and **three weeks after discharge (follow-up)**.

Population

- Adult patients with ASUC ($n=15$)
- Without Type-1 or Type-2 diabetes

Methods

- Homeostatic Model Assessment for Insulin Resistance (HOMA-IR)
- Indirect calorimetry
- Bioelectrical Impedance Analysis (BIA)

Results

Figure A: Homeostatic Model Assessment for Insulin Resistance (HOMA-IR) scores at baseline and follow-up.

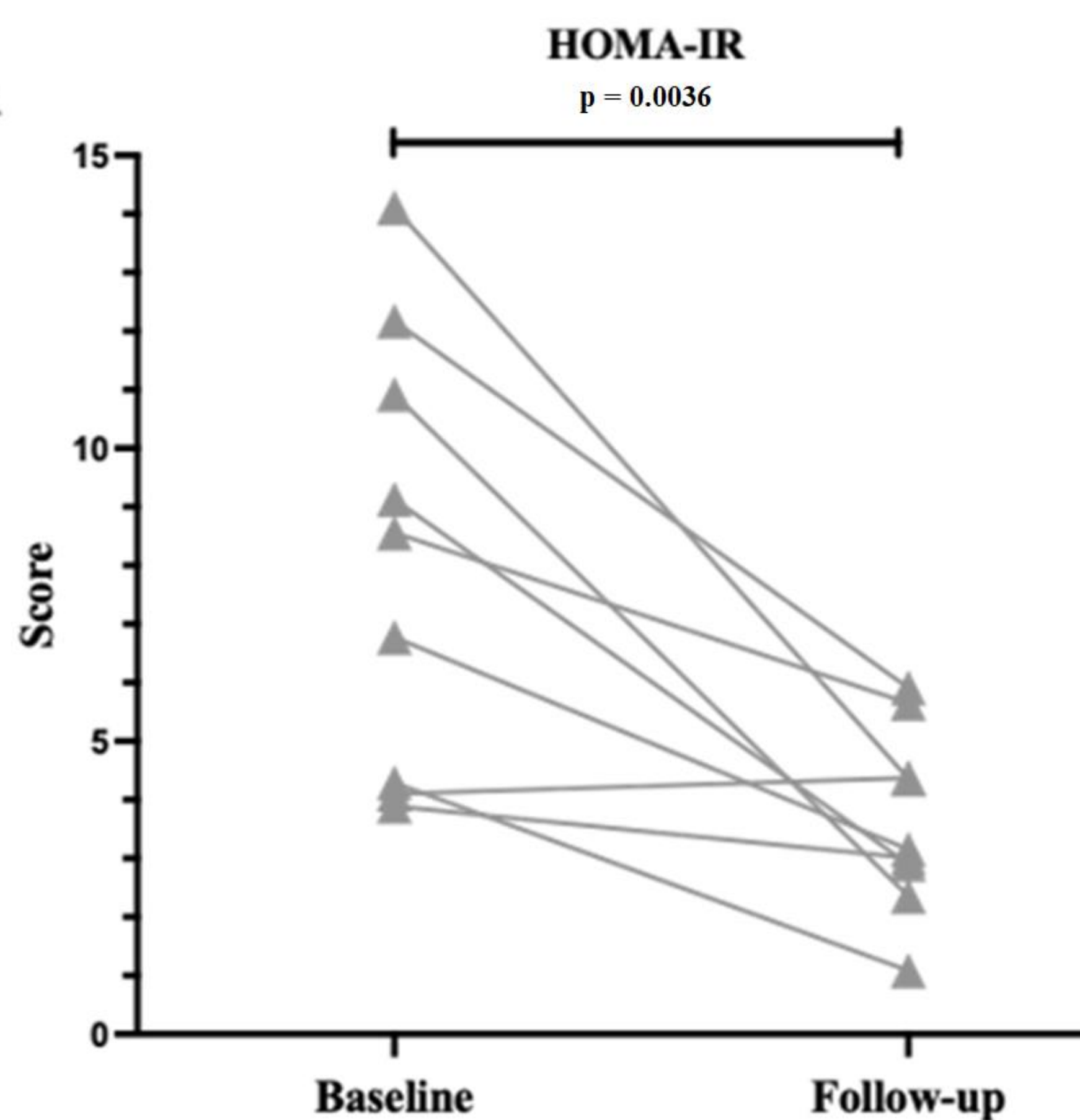


Figure B: Difference in resting energy expenditure (REE) at baseline and follow-up.

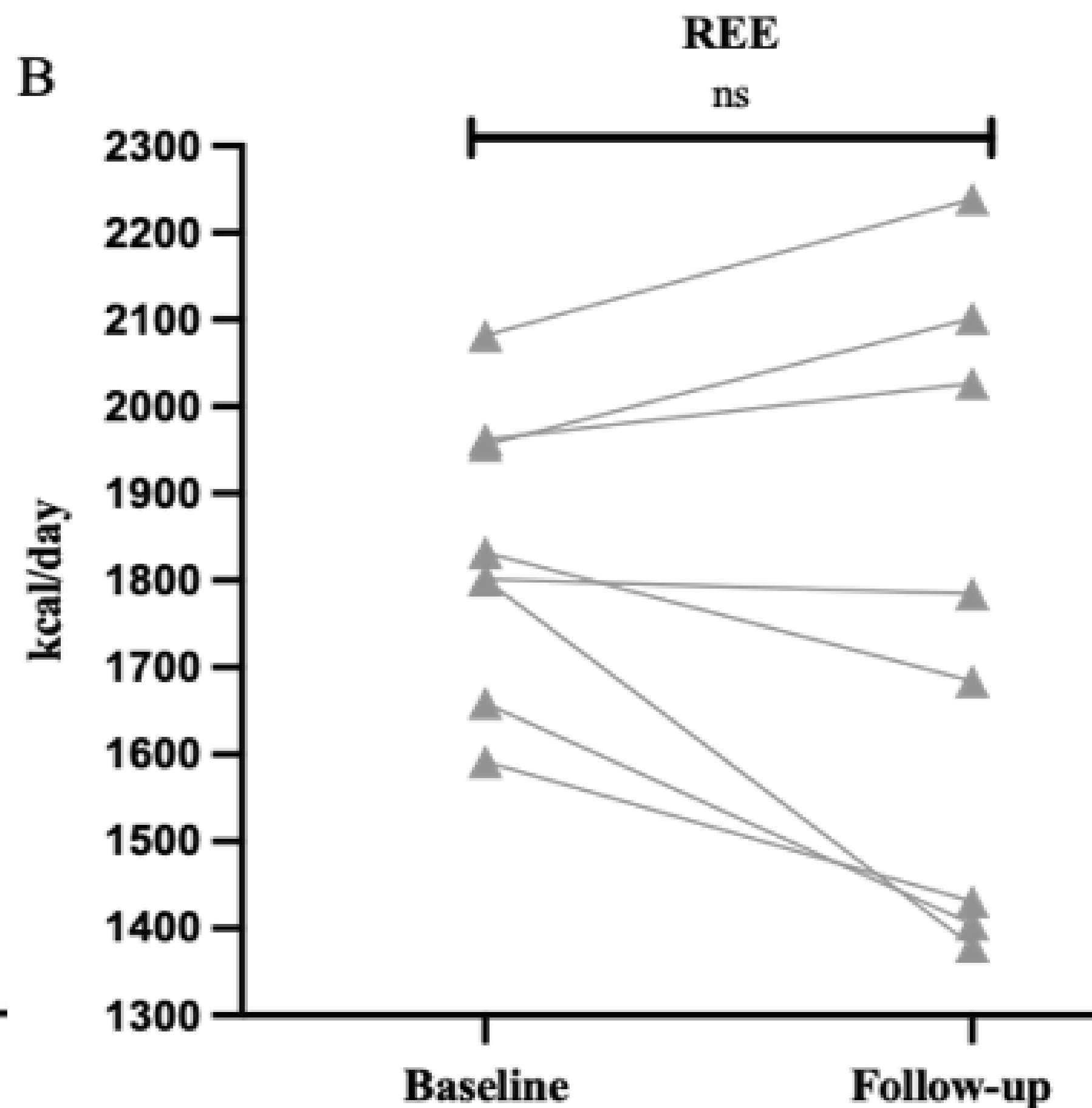
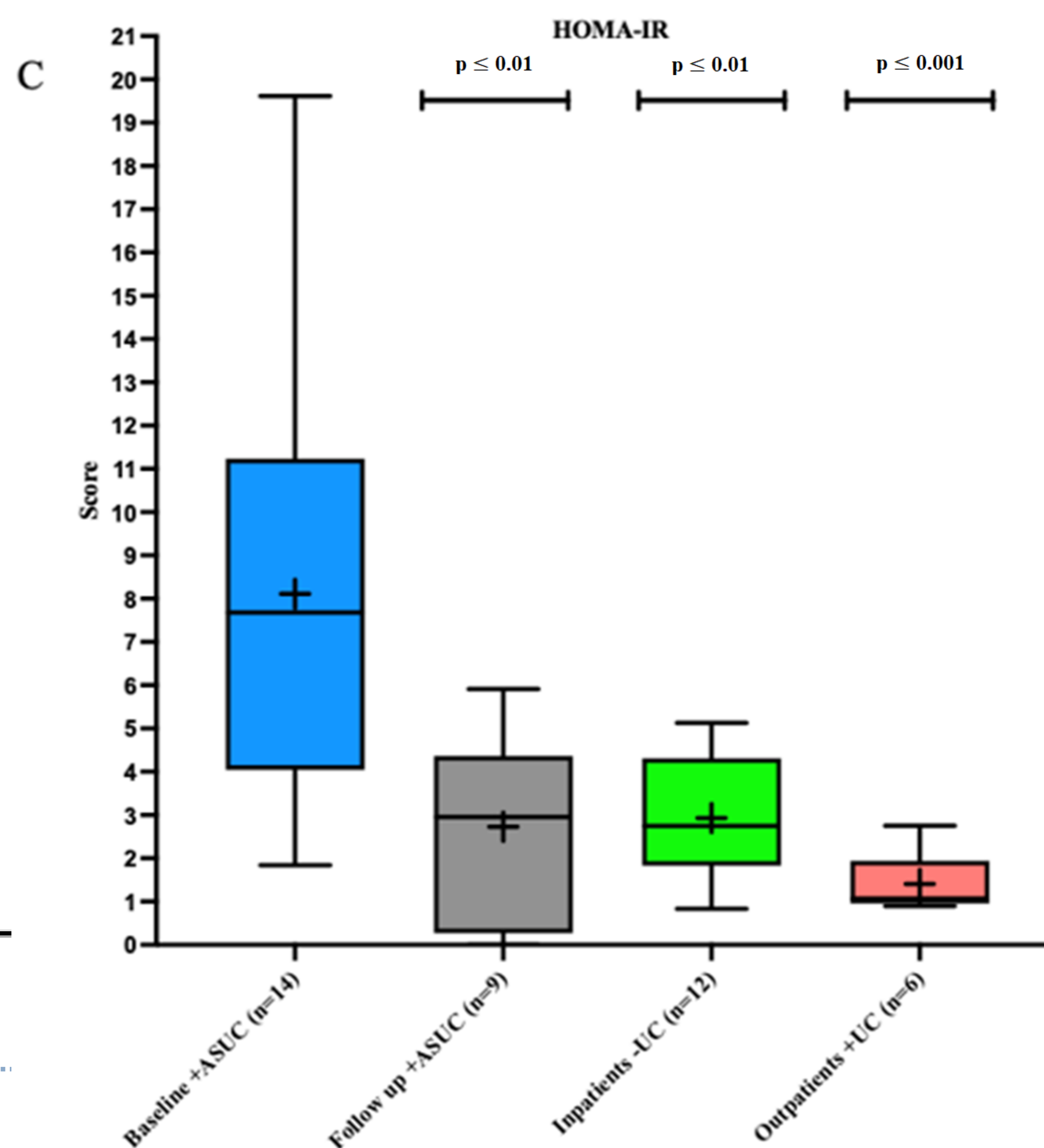


Figure C: Difference in scores of HOMA-IR between patients with ASUC and control groups.



Conclusion

- HOMA-IR, a marker of insulin resistance, was markedly elevated in patients admitted with ASUC.
- Although reduced at three-week follow-up, most of the patients remained relatively insulin resistant, compared with relevant control groups (median 7.68 [1.84; 19.61] ($p=0.0036$)).
- Resting energy expenditure and body composition did not change from baseline to follow-up.