

ORIGINAL ARTICLE

Effect of Mesoglycan on walking distance in patients affected by Chronic Peripheral Arterial Occlusive Disease

Bruno Gossetti, Luigi Irace, Marco Felli, Anna Rita Rizzo, Alessia Alunno,
Anna Castiglione, Wassim Mansour, Luigi Santoro

Department of Vascular Surgery, "Sapienza" University of Rome, Italy
Policlinico Umberto I, Rome, Italy

ABSTRACT

Aim

To determine the effect of mesoglycan on pain-free walking distance in patients affected by peripheral arterial occlusive disease without washout of their usual medication.

Methods

From 1 July 2005 to 21 April 2006, the Italian Mesoglycan Group (86 vascular medicine centres located throughout Italy) studied 704 patients (aged > 50 years) affected by peripheral arterial disease manifested by intermittent claudication (pain-free walking distance <200 m). They were treated with mesoglycan (100 mg/daily) for 90 days without medication washout. We examined the patient's lower limb arterial tree using echo-colour Doppler, computerized tomographic angiography, magnetic resonance angiography or angiography. Patients also underwent a walking distance test and the ankle/brachial index (ABI) was measured. The walking test and ABI measurement were repeated 90 and 180 days after treatment onset.

Results

A total of 490/704 (69.6%) patients completed the study, and their data were analysed. The mean pain-free walking distance significantly increased from a baseline of 123.9 ± 50.0 (SD) m (median: 120 m) to 178.9 ± 99.9 m (median: 160 m) at 90 days (end of treatment). There was a further significant increase ($P < 0.0001$) versus baseline 90 days after treatment withdrawal: 195.6 ± 114.7 m (median: 175 m). No patient withdrew from the study because of side effects.

Conclusion

Our finding that mesoglycan improved walking distance also in patients who continued their usual medications supports earlier data showing that this agent is beneficial in patients with intermittent claudication.

Key words: mesoglycan; peripheral arterial occlusion; walking test; intermittent claudication; CW Doppler

INTRODUCTION

Mesoglycan has been shown to be effective in treating chronic venous insufficiency of the legs in patients affected by varicose veins^{1,5}, in patients with perimalleolar venous ulcers^{6,7} and in post-phlebitis syndrome.⁸ Fewer data are available about the effect of mesoglycan in patients affected by chronic peripheral arterial occlusive disease.⁹⁻¹¹ In an attempt to obtain further information about this topic, the Italian Mesoglycan Group, constituted by vascular specialists and/or physicians specialized in ultrasound diagnostics from various Italian regions, carried out a 10-month observational study to determine the efficacy of mesoglycan on pain-free walking distance in patients affected by intermittent claudication who continued their usual medication.

MATERIAL AND METHODS

Between 1 July 2005 and 21 April 2006, 86 vascular medicine centers located throughout Italy enrolled 704 patients with chronic arterial occlusive lesions of the lower limbs in the study. Eligibility criteria were: age above 50 years; intermittent claudication (pain-free walking distance less than 200 m on a flat surface); at least one steno-obstructive lesion of the iliac-femoral-popliteal-tibial axes demonstrated by echo-colour Doppler, computerized tomographic or magnetic resonance angiography, or by angiography. Patients did not undergo washout of ongoing medications. At the baseline visit, we collected information about medications the patient was regularly taking. The drugs were coded for indications and treatment class using the Anatomical Therapeutic Chemical classification codes. The most frequent disorders requiring drug treatment were hypertension, diabetes mellitus, hyperlipidemia, and heart, lung, neurological and kidney disorders. The drugs most frequently used, i.e., by at least 10% of the study population, were: antiplatelet agents (52.3%), statins (32.7%), angiotensin-converting enzyme inhibitors (23.3%), calcium antagonists (22.0%), oral antidiabetic agents (19.0%), and angiotensin II antagonists (10.9%). Patients continued taking their usual medications, and were instructed to take oral mesoglycan 50

Corresponding author: Prof. Bruno Gossetti,
Chair of the Vascular Surgery Department,
"Sapienza" University of Rome, Italy.
E-mail: b.gossetti@flashnet.it