Tetrahedron Letters xxx (2017) xxx-xxx

FISEVIER

Contents lists available at ScienceDirect

Tetrahedron Letters

journal homepage: www.elsevier.com/locate/tetlet



Corrigendum

Corrigendum to "Macahydantoins A and B, two new thiohydantoin derivatives from Maca (*Lepidium meyenii*): Structural elucidation and concise synthesis of macahydantoin A" [Tetrahedron Lett., 58 (17) (2017) 1684–1686]

Mu-Yuan Yu^{a,b,c,d}, Xu-Jie Qin^{a,c,d}, Li-Dong Shao^{a,c,d}, Xing-Rong Peng^{a,c}, Lei Li^{a,b,c}, Han Yang^{a,c}, Ming-Hua Qiu^{a,c,*}

The authors regret an error in the structure of the macahydantoin B in the abovementioned published paper. The corresponding corrections are shown below. The authors would like to apologise for any inconvenience caused.

Graphical abstract

Abstract

Macahydantoins A (1) and B (2), two new thiohydantoin derivatives with unprecedented skeletons, were isolated from maca (*Lepidium meyenii*). Their structures and absolute configurations were fully established by extensive spectroscopic and computational methods. The totally chemical synthesis of macahydantoin

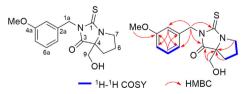
0040-4039/© 2017 Elsevier Ltd. All rights reserved.

https://doi.org/10.1016/j.tetlet.2017.09.037

A was achieved via benzylamine and methyl piperidine-3-carboxylate hydrochloride through nucleophilic addition and intramolecular dehydration condensation.

The structural elucidation of macahydantoin B (2)

Macahydantoin B (2) had the molecular formula of $C_{15}H_{18}O_3N_2S$ by its HRESIMS (m/z 307.1111, $[M+H]^+$) and ^{13}C NMR data. Comparison of the ¹H and ¹³C NMR data of **2** and **1** (Table 1) indicated that they were related analogues, differing in the presence of an additional methoxy group (δ_H 3.77, δ_C 55.2) and a down-shift carbon (δ_C 74.8). HMBC correlation of δ_H 3.77 with δ_C 159.6 (s, C-4a) suggested that the methoxy group were located at C-4a. In addition, key HMBC correlations of δ_{H} 5.00 and 4.95 (H₂-1a) with δ_C 188.1 (s, C-1) and 175.6 (s, C-3), of δ_H 4.21 (H-7a) and 1.98 (H-5a) with δ_C 74.8 (s, C-4), and of δ_H 3.70 (H-9b) with C-3, C-4, and δ_C 27.8 (t, C-5) indicated the construction of two fivemembered rings and hydroxymethyl group was placed at C-4. Further chiral analysis of 2 suggested that it was also a pair of enantiomer. As the same manner of 1, 2 was subsequently separated by a CHIRALPAK ADH column and the absolute configurations of (+)-2 and (-)-2 (Fig. S1) were unambiguously established as 4R and 4S by computational evidence, respectively. Thus, the structure of 2 was elucidated as shown.



Structure and 2D NMR correlations of 2

The authors would like to apologise for any inconvenience caused.

^a State Key Laboratory of Phytochemistry and Plant Resources in West China, Kunming Institute of Botany, Chinese Academy of Sciences, Kunming 650201, People's Republic of China

^b University of Chinese Academy of Sciences, Beijing 100049, People's Republic of China

^c Yunnan Key Laboratory of Natural Medicinal Chemistry, Kunming 650201, People's Republic of China

DOI of original article: https://doi.org/10.1016/j.tetlet.2017.03.038

^{*} Corresponding author at: State Key Laboratory of Phytochemistry and Plant Resources in West China, Kunming Institute of Botany, Chinese Academy of Sciences, Kunming 650201, People's Republic of China.

E-mail address: mhchiu@mail.kib.ac.cn (M.-H. Qiu).

^d These authors contributed equally to this work.