



Author's Reply

Response to “Ipolamiide and other phytoconstituents of the *Gynura procumbens*”

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We appreciate the constructive comments by Mohsen and Mozafar in our paper which appeared to have insufficient accuracy in analyzing the compounds present in *Gynura procumbens* in regards to their molecular weights. Regretfully, we admit

our mistake as the m/z stated in our published paper were mistakenly presented as unprocessed data, which were the m/z with the adducts ion. Therefore, we have revised the Tables 1-5 with new calculated m/z values as below: In addition, we also found that the compound of 2,3-dinor

Table 1. Compounds identified in *Gynura procumbens* ethanol extract (positive and negative ion modes) using LC-MS

Compound	Formula	m/z	Group
α-9(10)-EpODE	C ₁₈ H ₃₀ O ₃	294.2120	Fatty acid
9Z,12Z,15E-octadecatrienoic acid	C ₁₈ H ₃₀ O ₂	278.2169	Fatty acid (Linolenic acid)
6E,9E-octadecadienoic acid	C ₁₈ H ₃₂ O ₂	280.2329	Fatty Acyls
Pheophorbide a	C ₃₅ H ₃₆ N ₄ O ₅	592.2770	Product of chlorophyll breakdown

Table 2. Compounds identified in the *Gynura procumbens* aqueous fraction (positive and negative ion modes) using LC-MS

Compound	Formula	m/z	Group
Isovitexin 2''-O-arabinoside	C ₂₆ H ₂₈ O ₁₄	564.1563	Flavonoid
Homoesperetin 7-rutinoside	C ₂₉ H ₃₆ O ₁₅	624.2401	Flavanone glycoside
9Z,12Z,15E-octadecatrienoic acid	C ₁₈ H ₃₀ O ₂	278.2321	Fatty acid (Linolenic acid)
Ipolamiide	C ₁₇ H ₂₆ O ₁₁	406.1822	Terpene glycoside
6,8-Di-C-beta-D-arabinopyranosylapigenin	C ₂₅ H ₂₆ O ₁₃	534.1297	Flavonoid

Table 3. Compounds identified in *Gynura procumbens* chloroform fraction (positive and negative ion modes) using LC-MS

Compound	Formula	m/z	Group
4-(2-Hydroxypropoxy)-3,5-dimethylphenol	C ₁₁ H ₁₆ O ₃	196.1173	Phenols
11-hydroperoxy-12,13-epoxy-9-octadecenoic acid	C ₁₈ H ₃₂ O ₅	328.2590	Octadecanoids
Decenedioic acid	C ₁₀ H ₁₆ O ₄	200.1384	Fatty Acyls
(-)-12-hydroxy-9,10-dihydrojasmonic acid	C ₁₂ H ₂₀ O ₄	228.1285	Oxo monocarboxylic acid
5,8,12-trihydroxy-9-octadecenoic acid	C ₁₈ H ₃₄ O ₅	330.2329	Fatty Acyls
(6S)-dehydrovomifoliol	C ₁₃ H ₁₈ O ₃	222.1327	Sesquiterpenoids (terpenes)

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Table 4. Compounds identified in *Gynura procumbens* ethyl acetate fraction (positive and negative ion modes) using LC-MS

Compound	Formula	m/z	Group
p-Salicylic acid	C ₇ H ₆ O ₃	138.0389	Benzene
Luteolin 7-rhamnosyl(1->6)galactoside	C ₂₇ H ₃₀ O ₁₅	594.1664	Flavonoid
6-Hydroxy luteolin 5-rhamnoside	C ₂₁ H ₂₀ O ₁₁	448.1084	Flavonoid
Glycerol trivalerate	C ₁₈ H ₃₂ O ₆	344.2541	Fatty acids
Formononetin 7-O-glucoside-6''-O-malonate	C ₂₅ H ₂₄ O ₁₂	516.1349	Isoflavonoids

Table 5. Compounds identified in *Gynura procumbens* hexane fraction (positive and negative ion modes) using LC-MS

Compound	Formula	m/z	Group
Harderoporphyrin	C ₃₅ H ₃₆ N ₄ O ₆	608.2718	Porphyrins
6E,9E-octadecadienoic acid	C ₁₈ H ₃₂ O ₂	280.2329	Fatty Acyls
Pheophorbide a	C ₃₅ H ₃₆ N ₄ O ₅	592.2770	Product of chlorophyll breakdown
9Z,12Z,15E-octadecatrienoic acid	C ₁₈ H ₃₀ O ₂	278.2321	Fatty acid (Linolenic acid)

Thromboxane B1 was also wrongly mentioned as identified in *G. procumbens* ethyl acetate fraction (positive and negative ion modes) using LC-MS in our published paper (Table 4) (1). The correct compound is Glycerol trivalerate, C₁₈H₃₂O₆, m/z value of 344.2541 from fatty acid group (Table 4) (2).

Conflict of interests

The authors declare that they have no conflict of interest.

Ethical considerations

Not applicable.

References

1. Manogaran M, Lim V, Mohamed R. Phytoconstituents of the *Gynura procumbens* ethanol leaf extract and its fractions and their effects on viability of macrophages. *J Herbmed Pharmacol.* 2019;8(3):224-30. doi: 10.15171/jhp.2019.33
2. Glycerol-trivalerate. Pubchem. Available from: <https://pubchem.ncbi.nlm.nih.gov/#query=Glycerol-trivalerate>.