CORRECTION OPEN

Check for updates

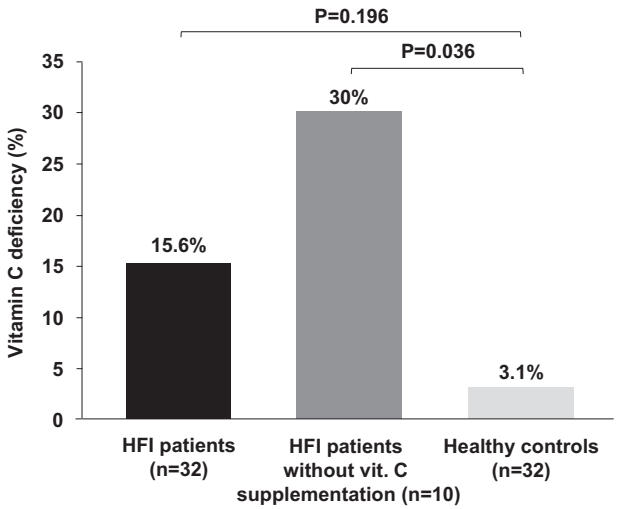
Correction: Vitamin C and folate status in hereditary fructose intolerance

Ainara Cano, Carlos Alcalde, Amaya Belanger-Quintana, Elvira Cañedo-Villarroya, Leticia Ceberio, Silvia Chumillas-Calzada, Patricia Correcher, María Luz Couce, Dolores García-Arenas, Igor Gómez, Tomás Hernández, Elsa Izquierdo-García, Dámaris Martínez Chicano, Montserrat Morales, Consuelo Pedrón-Giner, Estrella Petrina Jáuregui, Luis Peña-Quintana, Paula Sánchez-Pintos, Juliana Serrano-Nieto, María Unceta Suarez, Isidro Vitoria Miñana and Javier de las Heras

European Journal of Clinical Nutrition; https://doi.org/10.1038/s41430-023-01334-3

Correction to: *European Journal of Clinical Nutrition* https://doi.org/10.1038/s41430-022-01178-3, published online 19 July 2022

In the original article [1], there was a mistake in the calculation of the *p* values in the comparisons of the categorical variables. These *p* values have been corrected in Table 1 and Fig. 2.



In the abstract, the following sentence "Interestingly, a higher percentage of non-supplemented HFI patients were vitamin C deficient when compared to supplemented HFI patients (30% vs 9.1%; $p = 0.01$) and to healthy controls (30% vs 3.1%; $p < 0.001$)" should read as follows: "Interestingly, a higher percentage of non-supplemented HFI patients were vitamin C deficient when compared to healthy controls (30% vs 3.1%; $p = 0.036$)."

In the 'Vitamin C status' section, the following excerpt contained some mistakes: "Although 22 out of 32 HFI patients received vitamin C supplementation, there were no differences in plasma vitamin C levels between HFI patients and healthy controls (Table 1). However, there was a higher percentage of vitamin C deficient patients in the HFI group compared to the healthy controls (15.6% vs. 3.1%; $p < 0.001$) (Fig. 2). Taking into account vitamin C supplementation, although there were no significant differences in vitamin C levels between non-supplemented HFI patients and healthy controls (32.9 [5.7–76.7] mol/L vs. 45.1 [10.2–129.5] mol/L; $p = 0.154$), a higher percentage of non-supplemented HFI patients presented vitamin C deficiency (30% vs. 3.1%; $p < 0.001$) (Fig. 2).

Within the HFI group, the patients that were not given vitamin C supplements presented lower circulating levels than those who were given supplements (32.9 [5.7–76.7] mol/L vs. 59.1 [6.8–138] mol/L; $p = 0.047$) and a higher percentage of these non-supplemented patients displayed vitamin C deficiency (30% vs. 9.1%; $p = 0.01$). The amount of vitamin C supplementation and plasma levels correlated positively ($R = 0.443$; $p = 0.011$) (Fig. 3)". It has been corrected as follows: "Twenty-two out of 32 HFI patients received vitamin C supplementation, and there were no differences in plasma vitamin C levels or the percentage of vitamin C deficiency between HFI patients and healthy controls (Table 1). Taking into account vitamin C supplementation, although there were no significant differences in vitamin C levels between non-supplemented HFI patients and healthy controls (32.9 [5.7–76.7] mol/L vs. 45.1 [10.2–129.5] mol/L; $p = 0.154$), a higher percentage of non-supplemented HFI patients presented vitamin C deficiency (30% vs. 3.1%; $p = 0.036$) (Fig. 2).

Within the HFI group, although the patients that were not given vitamin C supplements presented lower circulating levels than those who were given supplements (32.9 [5.7–76.7] mol/L vs. 59.1 [6.8–138] mol/L; $p = 0.047$), there were not statistically significant differences in the percentage of vitamin C deficiency between the two groups (30% vs. 9.1%; $p = 0.293$). The amount of vitamin C supplementation and plasma levels correlated positively ($R = 0.443$; $p = 0.011$) (Fig. 3)."

In the section 'Multivitamin vs. single supplementation', the sentence "In addition, although there were no statistically significant differences in circulating vitamin C levels between HFI patients with single and multivitamin supplementation (67.0 [21.6–94.8] mol/L vs. 22.7 [6.8–103.3] mol/L; $p = 0.368$), a higher percentage of HFI patients on multivitamin supplementation presented vitamin C deficiency (25% vs. 0%; $p < 0.001$)" was

Published online: 06 September 2023

Table 1. Clinical, biochemical, and nutritional characteristics in HFI patients and healthy controls.

	Healthy controls	HFI patients	*p* value
n	32	32	
Male/female, *n*/*n*	13/19	12/20	0.798
Age, years	16.0 [2.1–61.3]	14.6 [5.5–63.5]	0.961
Weight, kg	50.5 ± 15.3	47.2 ± 15.6	0.401
BMI, kg/m^2	20.2 ± 3.2	19.0 ± 3.1	0.710
Plasma vitamin C (μmol/L)	45.1 [10.2–129.5]	49.4 [5.7–138.0]	0.895
Serum folate (nmol/L)	21.5 [12.7–48.7]	24.7 [6.1–54.4]	0.619
Vitamin C hypovitaminosis/deficiency (*n*; %)	2; 6.3%	7; 21.9%	0.148
Vitamin C deficiency (*n*; %)	1; 3.1%	5; 15.6%	0.196
Folate deficiency (*n*; %)	0	1; 3.1%	1.000
Dietary intake			
n	28	30	
Vegetable fiber (g/day)	15.9 [9.4–59.7]	12.1 [6.1–21.4]	**0.006**
Vitamin C (mg/day)	107.0 [42.8–346.6]	23.8 [6.4–76.1]	**<0.001**
Folate (μg/day)	202.2 [115.8–524.2]	183.5 [78.6–304.3]	**0.027**

Continuous variables are represented as mean ± standard deviation or as median [minimum–maximum], depending on data distribution. Significant *p* values are marked in bold. Body mass index (BMI). Vitamin C hypovitaminosis/deficiency: circulating vitamin C levels ≤23 μmol/L. Vitamin C deficiency: circulating vitamin C levels ≤11 μmol/L.

corrected to read "There were no statistically significant differences in circulating vitamin C levels (67.0 [21.6–94.8] mol/L vs. 22.7 [6.8–103.3] mol/L; $p = 0.368$), or in the percentage of vitamin C deficiency (28.6% vs. 0%; $p = 0.137$) between HFI patients with single and multivitamin supplementation."

Finally, in the 'Discussion' section, the sentence "The most relevant finding of the present study is that the HFI patients that did not consume vitamin C supplements presented a higher percentage of vitamin C deficiency than the healthy control subjects or HFI patients that received vitamin supplementation, providing for the first time evidence for the indication of vitamin C supplementation in patients with HFI under a FSS-restricted diet" was slightly adjusted to read "The most relevant finding of the present study is that the HFI patients that did not consume vitamin C supplements presented a higher percentage of vitamin C deficiency than the healthy control subjects, providing for the first time evidence for the indication of vitamin C supplementation in patients with HFI under a FSS-restricted diet."

The authors apologize for these errors and state that these do not change the scientific conclusions of the article. The original article has been corrected.

REFERENCE

1. Cano A, Alcalde C, Belanger-Quintana A, Cañedo-Villarroya E, Ceberio L, Chumillas-Calzada S, et al. Vitamin C and folate status in hereditary fructose intolerance. Eur J Clin Nutr. 2022;76:1733–9. https://doi.org/10.1038/s41430-022-01178-3.