

CORRIGENDUM

Resistant starch and arabinoxylan augment SCFA absorption, but affect postprandial glucose and insulin responses differently – CORRIGENDUM

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The *P* value for the diet effect on net portal glucose flux (NPF) (Table 4) in the paper by Ingerslev *et al.*⁽¹⁾ was incorrect. It should read: The NPF of glucose were 258 mmol/h on the WSD, 203 mmol/h on the RSD and 242 mmol/h on the AXD (SEM 21), and the corresponding *P* values were $P_{\text{Diet}} = 0.20$, $P_{\text{Time}} < 0.001$ and $P_{\text{Diet} \times \text{Time}} < 0.001$, respectively.

Table 4. Net portal flux of metabolites from 0 to 5 h after the first daily meal*
(Least-squares (LS) means with their standard errors or 95 % confidence intervals)

	WSD		RSD		AXD		SEM	<i>P</i>		
	LS means	95 % CI	LS means	95 % CI	LS means	95 % CI		Diet	Time	Diet × time
Portal blood flow (litres/min)†	2.77		2.15		2.87		0.29	NS‡	<0.001	NS
Net portal flux (mmol/h)										
Glucose	258		203		242		21	0.20	<0.001	<0.001
Insulin flux (nmol/h)§	9.0 ^{a,b}	3.6, 15.7	10.5 ^a	4.8, 17.5	4.6 ^b	0.01, 10.2	–	0.09	0.04	NS
C-peptide (nmol/h)§	7.9	4.6, 11.4	6.6	3.4, 10.0	5.5	2.4, 8.8	–	NS	<0.001	NS
GLP-1 (nmol/h)§	1.6	1.2, 2.0	1.8	1.4, 2.2	1.9	1.4, 2.3	–	NS	<0.001	NS
GIP (nmol/h)§	4.4	2.1, 6.9	2.8	0.5, 5.2	3.3	1.1, 5.7	–	NS	0.12	NS
SCFA	37 ^a		66 ^b		102 ^c		9.3	<0.001	0.009	0.006
Acetate	24 ^a		40 ^b		62 ^c		6.1	<0.001	0.006	0.01
Propionate	8.2 ^a		17 ^b		25 ^c		2.6	0.001	0.03	0.002
Butyrate	2.8 ^a		5.7 ^a		10.2 ^b		1.0	0.001	0.02	0.04
Valerate	1.7 ^a		2.4 ^b		2.5 ^b		0.4	0.05	<0.001	0.001
Caproate	0.05 ^a		0.68 ^b		0.59 ^b		0.15	0.03	0.005	0.03
BCFA	1.3 ^a		1.6 ^a		2.8 ^b		0.26	<0.001	NS	0.08
Isobutyrate	0.6 ^a		0.7 ^a		1.2 ^b		0.11	<0.001	NS	0.09
Isovalerate	0.7 ^a		0.9 ^a		1.5 ^b		0.15	<0.001	0.08	0.07
Hepatic extraction (%)										
Glucose	8		5		9		4.2	NS	<0.001	NS
Insulin	27		44		44		11	NS	NS	NS
Total SCFA	57		50		63		9.2	NS	0.03	NS
Acetate	44 ^{a,b}		29 ^b		49 ^a		12	0.03	NS	NS
Propionate	94		93		95		1.4	NS	NS	NS
Butyrate	83		79		83		4.6	NS	<0.001	NS

WSD, Western-style diet; RSD, resistant starch-enriched diet; AXD, arabinoxylan-enriched diet; GLP-1, glucagon-like peptide 1; GIP, glucose-dependent insulinotropic peptide; BCFA, branched-chain fatty acids.

^{a,b,c} Mean values within a row with unlike superscript letters are significantly different ($P < 0.05$).

* Mean plasma concentrations were determined in pigs fed either WSD, RSD or AXD.

† Mean values for portal blood flow are determined based on initial blood flow measurements.

‡ $P > 0.1$.

§ Since data were logarithmically transformed before data analysis, SEM is not the correct measure of variance. Instead, 95 % CI are given.



In the abstract, the first sentence describing the results (page 1564, line 7) should be: ‘The NPF of insulin was lower ($P=0.04$) in AXD-fed pigs (4.6 nmol/h) compared with RSD-fed pigs (10.5 nmol/h), despite similar glucose absorption among diets (203–258 mmol/h, $P_{\text{Diet}} = 0.20$). A prolonged and a lower peak NPF of glucose was observed in RSD-fed pigs ($P_{\text{Diet} \times \text{Time}} < 0.001$) compared with the WSD- and AXD-fed pigs.’

In the Results section, first paragraph (page 1570, line 9), the sentence should be: ‘Substituting wheat flour with potato and high-amylose maize starches or rye flakes and enzyme-treated wheat bran did not affect the NPF of glucose ($P=0.20$). However, RSD-fed pigs showed a significant diet \times time interaction ($P < 0.001$); RSD-fed pigs had a lower peak NPF of glucose (approximately 300 mmol/h) between 45 and 120 min after feeding.’

The authors apologise for this error.

Reference

1. Ingerslev AK, Theil PK, Hedemann MS, *et al.* (2014) Resistant starch and arabinoxylan augment SCFA absorption, but affect post-prandial glucose and insulin responses differently. *Br J Nutr* **111**, 1564–1576. Published by Cambridge University Press, February 2014, doi:10.1017/S0007114513004066.