

ERRATUM

Open Access



Erratum: Accuracy of microRNAs as markers for the detection of neck lymph node metastases in patients with head and neck squamous cell carcinoma

Ana Carolina de Carvalho^{1,3}, Cristovam Scapulatempo-Neto², Danielle Calheiros Campelo Maia¹, Adriane Feijó Evangelista³, Mariana Andozia Morini², André Lopes Carvalho^{4,7*} and André Luiz Vettore^{5,6,8*}

Author's correction note

Upon reviewing our recently published research article [1], we noticed that some of the data presented in the manuscript and on the tables were incorrectly presented. These mistakes do not change the overall conclusions regarding the high accuracy of miR-203 and miR-205 as diagnostic markers of neck metastases in HNSCC.

Corrected text

1. (Page 8: End of "Validation and diagnostic accuracy of miR-203 and miR-205 expression in FNA samples")

Please replace

All in all, the sensitivity rate for both markers was 92.9 % (39/42, CI 95 %, 80.5–98.4), with a specificity level of 100 % (71/71, CI 95 %, 94.9–100) (Table 2; Figure 6B).

With the amended text

All in all, the sensitivity rate for both markers was 93.3 % (42/45, CI 95 %, 81.7–98.6), with a specificity level of 100 % (68/68, CI 95 %, 94.7–100) (Table 2; Figure 6B).

2. (Page 8: End of "Validation and diagnostic accuracy of miR-203 and miR-205 expression in FNA samples")

Please replace

Moreover, negative predictive values were of 95.9 % (95 % CI, 88.6–99.1 %) and positive predictive values

of 100 % (95 % CI, 90.9–100 %) for both microRNAs (Table 3).

With the amended text

Moreover, negative predictive values were of 95.9 % (95 % CI, 88.6–99.1 %) and positive predictive values of 100% (95 % CI, 91.5–100 %) for both microRNAs (Table 3).

* Correspondence: alopescarvalho@gmail.com; andre.vettore@gmail.com

⁴Department of Head and Neck Surgery, Barretos Cancer Hospital, Barretos, Brazil

⁵Laboratory of Cancer Molecular Biology, Department of Biological Sciences, Federal University of São Paulo, Diadema, Brazil

Full list of author information is available at the end of the article

3. (Page 8: Table 2) - Please replace:

Table 2 Sensitivity and specificity values of microRNAs evaluated in discriminating metastatic and non-metastatic lymph nodes in FFPE and FNA biopsies from lymph node samples

microRNA	Cutoff ^a	Sensitivity				Specificity	
		Metastatic ^b % (95 % CI) (n)	Macrometastases % (95 % CI) (n)	Micrometastases % (95 % CI) (n)	Isolated tumor cells % (95 % CI) (n)	Non-metastatic % (95 % CI) (n)	
FFPE samples							
miR-200a	5.96	76.0 (54.5-89.8) (19/25)	94.4 (70.6-99.7) (17/18)	40.0 (7.3-82.9) (2/5)	0 (0-80.2) (0/2)	100 (71.7-100) (13/13)	
miR-200c	2.33	88.0 (67.7-96.8) (22/25)	100 (78.1-100) (17/18)	80.0 (29.9-98.9) (4/5)	0 (0-80.2) (0/2)	100 (71.7-100) (13/13)	
miR-203	1.96	100 (83.4-100) (25/25)	100 (78.1-100) (17/18)	100 (46.3-100) (5/5)	100 (19.8-100) (2/2)	100 (71.7-100) (13/13)	
miR-205	1.54	100 (83.4-100) (25/25)	100 (78.1-100) (17/18)	100 (46.3-100) (5/5)	100 (19.8-100) (2/2)	100 (71.7-100) (13/13)	
FNA samples classified by cytology							
miR-203	10	100 (91.5-100) (42/42)	100 (91.5-100) (42/42)	N/A	N/A	100 (94.9-100) (71/71)	
miR-205	10	100 (91.5-100) (42/42)	100 (91.5-100) (42/42)	N/A	N/A	100 (94.9-100) (71/71)	
FNA samples classified by histology							
miR-203	10	92.9 (80.5-98.4) (68/71)	100 (89.3-100) (68/68)	0 (0) (0/2)	0 (0) (0/1)	100 (94.9-100) (71/71)	
miR-205	10	92.9 (80.5-98.4) (68/71)	100 (89.3-100) (68/68)	0 (0) (0/2)	0 (0) (0/1)	100 (94.9-100) (71/71)	

FFPE, formalin-fixed paraffin embedded; FNA, fine-needle aspiration; PPV, positive predictive value; NPV, negative predictive value; AUC, area under the ROC curve; CI, confidence interval; N/A, not applicable, FFPE, formalin-fixed paraffin embedded; FNA, fine-needle aspiration; PPV, positive predictive value; NPV, negative predictive value; AUC, area under the ROC curve; CI, confidence interval

^athe cutoff values for FFPE samples were determined according to the Youden index (value in which the difference between sensitivity and 1-specificity is maximum) obtained from the ROC curves

^bthe "metastatic" group comprises all cases with positive lymph nodes (macrometastases, micrometastases or isolated tumor cells)

With the amended table:

Table 2 Sensitivity and specificity values of microRNAs evaluated in discriminating metastatic and non-metastatic lymph nodes in FFPE and FNA biopsies from lymph node samples

microRNA	Cutoff ^a	Sensitivity				Specificity	
		Metastatic ^b % (95 % CI) (n)	Macrometastases % (95 % CI) (n)	Micrometastases % (95 % CI) (n)	Isolated tumor cells % (95 % CI) (n)	Non-metastatic % (95 % CI) (n)	
FFPE samples							
miR-200a	5.96	76.0 (54.5-89.8) (19/25)	94.4 (70.6-99.7) (17/18)	40.0 (7.3-82.9) (2/5)	0 (0-80.2) (0/2)	100 (71.7-100) (13/13)	
miR-200c	2.33	88.0 (67.7-96.8) (22/25)	100 (78.1-100) (18/18)	80.0 (29.9-98.9) (4/5)	0 (0-80.2) (0/2)	100 (71.7-100) (13/13)	
miR-203	1.96	100 (83.4-100) (25/25)	100 (78.1-100) (18/18)	100 (46.3-100) (5/5)	100 (19.8-100) (2/2)	100 (71.7-100) (13/13)	
miR-205	1.54	100 (83.4-100) (25/25)	100 (78.1-100) (18/18)	100 (46.3-100) (5/5)	100 (19.8-100) (2/2)	100 (71.7-100) (13/13)	
FNA samples classified by cytology							
miR-203	10	100 (91.5-100) (42/42)	100 (91.5-100) (42/42)	N/A	N/A	100 (94.9-100) (71/71)	
miR-205	10	100 (91.5-100) (42/42)	100 (91.5-100) (42/42)	N/A	N/A	100 (94.9-100) (71/71)	
FNA samples classified by histology							
miR-203	10	93.3 (81.7-98.6) (42/45)	100 (91.5-100) (42/42)	0 (0) (0/2)	0 (0) (0/1)	100 (94.7-100) (68/68)	
miR-205	10	93.3 (81.7-98.6) (42/45)	100 (91.5-100) (42/42)	0 (0) (0/2)	0 (0) (0/1)	100 (94.7-100) (68/68)	

FFPE, formalin-fixed paraffin embedded; FNA, fine-needle aspiration; PPV, positive predictive value; NPV, negative predictive value; AUC, area under the ROC curve; CI, confidence interval; N/A, not applicable, FFPE, formalin-fixed paraffin embedded; FNA, fine-needle aspiration; PPV, positive predictive value; NPV, negative predictive value; AUC, area under the ROC curve; CI, confidence interval

^athe cutoff values for FFPE samples were determined according to the Youden index (value in which the difference between sensitivity and 1-specificity is maximum) obtained from the ROC curves

^bthe "metastatic" group comprises all cases with positive lymph nodes (macrometastases, micrometastases or isolated tumor cells)

4. (Page 10: Table 3) - Please replace:

Table 3 Accuracy characteristics of microRNAs in discriminating metastatic and non-metastatic lymph nodes in FFPE and FNA biopsies from lymph node samples

microRNA	PPV % (95 % CI)	NPV % (95 % CI)	Accuracy % (95 % CI)	AUC (95 % CI)
FFPE samples				
miR-200a	100 (82.2-100.0)	68.4 (43.5-87.3)	84.2 (68.1-93.4)	0.92 (0.83-0.99)
miR-200c	100 (84.4-100.0)	81.2 (54.34-95.73)	92.1 (77.5-97.9)	0.94 (0.85-1.0)
miR-203	100 (86.2-100)	100 (75.1-100)	100 (88.6-100)	1.0 (0-1.0)
miR-205	100 (86.2-100)	100 (75.1-100)	100 (88.6-100)	1.0 (0-1.0)
FNA samples classified by cytology				
miR-203	100 (91.5-100)	100 (94.9-100)	100 (96.05-100)	1.0 (0-1.0)
miR-205	100 (91.5-100)	100 (94.9-100)	100 (96.05-100)	1.0 (0-1.0)
FNA samples classified by histology				
miR-203	100 (90.9-100)	95.9 (88.6-99.1)	97.3 (92.1-99.4)	0.963 (0.921-1.0)
miR-205	100 (93.2-100)	94.6 (85.1-98.8)	96.7 (93.1-100)	0.966 (0.921-1.0)

FFPE, formalin-fixed paraffin embedded; FNA, fine-needle aspiration; PPV, positive predictive value; NPV, negative predictive value; AUC, area under the ROC curve; CI, confidence interval

With the amended table:

Table 3 Accuracy characteristics of microRNAs in discriminating metastatic and non-metastatic lymph nodes in FFPE and FNA biopsies from lymph node samples

microRNA	PPV % (95 % CI)	NPV % (95 % CI)	Accuracy % (95 % CI)	AUC (95 % CI)
FFPE samples				
miR-200a	100 (82.2-100.0)	68.4 (43.5-87.3)	84.2 (68.1-93.4)	0.92 (0.83-0.99)
miR-200c	100 (84.4-100.0)	81.2 (54.34-95.73)	92.1 (77.5-97.9)	0.94 (0.85-1.0)
miR-203	100 (86.2-100)	100 (75.1-100)	100 (88.6-100)	1.0 (0-1.0)
miR-205	100 (86.2-100)	100 (75.1-100)	100 (88.6-100)	1.0 (0-1.0)
FNA samples classified by cytology				
miR-203	100 (91.5-100)	100 (94.9-100)	100 (96.05-100)	1.0 (0-1.0)
miR-205	100 (91.5-100)	100 (94.9-100)	100 (96.05-100)	1.0 (0-1.0)
FNA samples classified by histology				
miR-203	100 (91.5-100)	95.9 (88.6-99.1)	97.3 (92.1-99.4)	0.963 (0.921-1.0)
miR-205	100 (91.5-100)	95.9 (88.6-99.1)	97.3 (92.1-99.4)	0.966 (0.921-1.0)

FFPE, formalin-fixed paraffin embedded; FNA, fine-needle aspiration; PPV, positive predictive value; NPV, negative predictive value; AUC, area under the ROC curve; CI, confidence interval

Author details

¹Laboratory of Cancer Molecular Biology, Department of Biological Sciences, Federal University of São Paulo, Diadema, Brazil. ²Department of Pathology, Barretos Cancer Hospital, Barretos, Brazil. ³Molecular Oncology Research Center, Barretos Cancer Hospital, Barretos, Brazil. ⁴Department of Head and Neck Surgery, Barretos Cancer Hospital, Barretos, Brazil. ⁵Laboratory of Cancer Molecular Biology, Department of Biological Sciences, Federal University of São Paulo, Diadema, Brazil. ⁶Cancer and Stem Cell Biology Program, Duke-NUS Graduate Medical School, Singapore, Singapore. ⁷Departamento de Cirurgia de Cabeça e Pescoço, Hospital de Câncer de Barretos, Rua Antenor Duarte Villela, 1331, Barretos, SP 14784-400, Brazil. ⁸Laboratório de Biologia Molecular do Câncer, UNIFESP, Rua Pedro de Toledo, 669 - 11º andar, L11B, São Paulo, SP 04039-032, Brazil.

Received: 18 June 2015 Accepted: 18 June 2015

Published online: 01 July 2015

Reference

1. de Carvalho AC, Scapulatempo-Neto C, Maia DC, Evangelista AF, Morini MA, Carvalho AL, et al. Accuracy of microRNAs as markers for the detection of neck lymph node metastases in patients with head and neck squamous cell carcinoma. *BMC Med.* 2015;13(1):108. doi:10.1186/s12916-015-0350-3.

**Submit your next manuscript to BioMed Central
and take full advantage of:**

- Convenient online submission
- Thorough peer review
- No space constraints or color figure charges
- Immediate publication on acceptance
- Inclusion in PubMed, CAS, Scopus and Google Scholar
- Research which is freely available for redistribution

Submit your manuscript at
www.biomedcentral.com/submit

