

ERRATUM

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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).

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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

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^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

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