Corrigendum

Automated detection of genetic abnormalities combined with cytology in sputum is a sensitive predictor of lung cancer

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In this article, the author has made the following corrections:

Page 952, Table 1 has been corrected (see revised table below).

Page 953, right column, third paragraph (Comparison of Patient Characteristics, Genetic Changes in Sputum and Cancer Status), beginning from third line, after '(Table 1).' should read 'There was no significant difference between cancer status for patients' age or smoking history in pack-years (Table 1). There was a significant association between the cytological diagnosis and presence of cancer compared to controls, with more diagnoses of squamous metaplasia, moderate and severe dysplasia occurring in cancer patient compared to controls. Similarly, more control patients had negative cytological diagnosis (Table 2a). In addition, there were significant differences in the percentages of chromosomal abnormalities in epithelial cells in relationship to the patients' cancer status (Table 2b). Significantly more abnormalities in epithelial cells of 3p, deletions of 10q, all abnormalities of 3, deletions and polysomies of 3p, all abnormalities of 10, and all 3 and 10 abnormalities (P-values < 0.018, < 0.013, < 0.033, < 0.026, < 0.018 and < 0.008, respectively) were present in the cancer patients than in the control subjects '(Figures 1–4).'

Page 953, 'Table 2' has been changed to 'Table 2a' (see Table 2a below). New Table 2b has been added (see Table 2b below).

Page 954, left column, first line, '(Table 2)' should be changed to '(Table 2b)'.

Page 954, right column, first paragraph, fourth line, should read '…deletion and polysomy of 10q22.3 greater or equal to 2 (OR, 4.38), and deletions and

Table 1 Characteristics of the subject populations

	Cancer (N = 35)	No cancer (N = 31)
Sex		
Female	21	16
Male	14	15
History of smoking (pack year)		
0	7	6
< 20	7	1
20–50	13	16
50–100	6	5
> 100	2	1
Age (mean, median)		2 (N/A)
Mean (range)	65 (47–81)	59 (27–75)
Stage		
I/IA/IB	20	0
II	7	0
III/IIIA	6	0
IV	2	0
Location of tumor		
Central tumor	6	0
Peripheral tumor	29	0
Histology		
Adenocarcinoma	22	0
Squamous-cell carcinoma	10	0
Neuroendocrine carcinoma	2	0
Non-small-cell carcinoma	1	0

N/A, not available.

Table 2a Association between cytologic diagnosis on sputum and cancer[†]

Cytology	Cancer patients	%	Control	%
Negative	8	29.63	19	70.37
Squamous metaplasia	10	83.33	2	16.67
Mild dysplasia	6	50.00	6	50.00
Moderate dysplasia	7	77.78	2	22.22
Severe dysplasia	4	66.67	2	33.33
Total	35		31	

[†]$P = 0.009$ (Fisher's exact test).

polysomies of 3p22.1 and cep 3 greater or equal to 5 (OR 3.01). …'

Page 955, arrows are missing in 'Figure 3c, d and e' images.

Page 956 arrows are missing in 'Figure 4a and b' images.

Page 959, see revised 'Table 5b' below.

Table 2b The association between cancer status and other continuous variables

Variable	Cancer status	N	Mean (s.d.)	Median (range)	P-value*
Age	0	31	59.2 (12.4)	62 (27, 75)	0.121
	1	35	65.1 (10.2)	65 (47, 81)	
History of Smoking (pack years)	0	29	2.8 (1.1)	3 (1, 5)	0.602
	1	34	2.7 (1.2)	3 (1, 5)	
Deletions 3p	0	31	3.1 (2.6)	2 (0, 10)	0.072
	1	35	4.3 (2.8)	4 (0, 10)	
Abnormalities 3p	0	31	0.2 (0.7)	0 (0, 3.8)	**0.018**
	1	35	0 (0)	0 (0, 0)	
Monosomy cep3	0	31	0.5 (0.9)	0 (0, 4)	0.443
	1	35	0.7 (1.6)	0 (0, 9)	
Polysomy cep3	0	31	0.2 (0.5)	0 (0, 2)	0.803
	1	35	0.4 (0.9)	0 (0, 4)	
Polysomy 3p	0	31	0.2 (0.5)	0 (0, 2)	0.053
	1	35	0.4 (0.6)	0 (0, 2)	
Deletions 10q	0	31	1.7 (1.5)	1.3 (0, 6)	**0.013**
	1	35	2.9 (2)	2 (0, 10)	
Abnormalities 10q	0	31	0.1 (0.5)	0 (0, 2.5)	0.207
	1	35	0.1 (0.4)	0 (0, 2.2)	
Monosomy cep10	0	31	1.1 (2)	0 (0, 8)	0.098
	1	35	1.7 (2)	1 (0, 9)	
Polysomy cep10	0	31	0.2 (0.5)	0 (0, 2.5)	0.176
	1	35	0.1 (0.4)	0 (0, 2)	
Polysomy 10q	0	31	0.2 (0.6)	0 (0, 2.5)	0.961
	1	35	0.2 (0.6)	0 (0, 3)	
All abn3	0	31	4.1 (3.2)	4 (0, 14)	**0.033**
	1	35	5.8 (3.3)	5 (2, 17)	
Del and Poly3p	0	31	3.2 (2.8)	2.8 (0, 12)	**0.026**
	1	35	4.7 (2.7)	4 (0, 11)	
Aneusomy 3	0	31	0.7 (1)	0.1 (0, 4)	0.685
	1	35	1.1 (1.8)	0 (0, 9)	
All abn 10	0	31	3.4 (3.3)	3 (0, 12.5)	**0.018**
	1	35	5 (2.9)	5 (1, 13)	
Del and Poly10q	0	31	1.9 (1.7)	2 (0, 7)	**0.018**
	1	35	3.1 (2.1)	3 (0, 10)	
Aneusomy 10	0	31	1.4 (2.2)	0.1 (0, 8)	0.146
	1	35	1.8 (2)	2 (0, 9)	
All 3 and 10 abn	0	31	7.5 (5.1)	7 (0, 19)	**0.008**
	1	35	10.8 (4.3)	10 (4, 23)	

Cep 3, centromeric 3; deletion 3p, deletion 3p22.1; polysomy 3p, polysomy 3p22.1; aneusomy Cep 3, combined abnormalities (monosomy and polysomy) of Cep 3; all abn 3, combined abnormalities of Cep3 and 3p; Cep 10, centromeric 10; deletion 10q, deletion 10q22-23; polysomy 10q, polysomy 10q22-23; aneusomy Cep 10, combined abnormalities (monosomy and polysomy) of Cep 10; all abn 10, combined abnormalities of Cep10 and 10q; abn, abnormality.
*P-values were based on Wilcoxon rank-sum test.
Cancer status, 0, no cancer.
Cancer status, 1 is cancer.

Table 5b Estimates of probability of cancer for each patient by sputum evaluation of genetic and cytologic variables derived from the multivariate logistic regression model for the diagnosis of cancer

Patient*	All abnormalities of 3/3p22.1[a]	Deletions and polysomies of 10/10q22.3[b]	Cytologic[c] diagnosis	Cancer status	Probability of cancer
1	1	0	3	Absent	0.429
2	0	0	5	Absent	0.271
3	0	1	1	Absent	0.232
4	0	0	1	Absent	0.064
5	0	1	1	Absent	0.232
6	1	1	1	Absent	0.476
7	1	1	3	Absent	0.767
8	1	1	1	Absent	0.476
9	1	0	1	Absent	0.172
10	0	0	3	Absent	0.200
11	1	1	1	Absent	0.476
12	1	1	5	Absent	0.830
13	0	1	1	Absent	0.232
14	1	0	4	Absent	0.788
15	1	0	3	Absent	0.429
16	0	1	2	Absent	0.817
17	0	0	1	Absent	0.064
18C	0	1	1	Absent	0.232
19C	0	0	1	Absent	0.064
20C	1	0	1	Absent	0.172
21C	0	0	1	Absent	0.064
22C	0	0	1	Absent	0.064
23C	0	1	1	Absent	0.232
24	1	1	1	Absent	0.476
25	0	0	1	Absent	0.064
26	1	1	1	Absent	0.476
27	0	1	4	Absent	0.844
28	0	1	1	Absent	0.232
29	1	0	3	Absent	0.429
30	0	0	3	Absent	0.200
31	0	1	2	Absent	0.817
32	1	0	2	Present	0.755
33	1	1	2	Present	0.931
34	1	1	2	Present	0.931
35	1	1	2	Present	0.931
36	1	1	1	Present	0.476
37	1	1	1	Present	0.476
38	1	1	1	Present	0.476
39	0	1	4	Present	0.844
40	1	0	1	Present	0.172
41	0	1	3	Present	0.522
42	1	1	3	Present	0.767
43	1	1	3	Present	0.767
44	1	1	5	Present	0.830
45	1	1	3	Present	0.767
46	1	0	4	Present	0.788
47	0	1	4	Present	0.844
48	1	1	1	Present	0.476
49	0	1	3	Present	0.522
50	0	0	2	Present	0.505
51	0	1	5	Present	0.619
52	1	1	5	Present	0.830
53	0	1	2	Present	0.817
54	0	0	4	Present	0.553
55	0	1	5	Present	0.619
56	0	1	2	Present	0.817
57	1	1	1	Present	0.476
58	1	1	2	Present	0.931
59	0	1	2	Present	0.817
60	0	1	4	Present	0.844
61	1	1	1	Present	0.476
62	1	1	1	Present	0.476
63	1	1	4	Present	0.942
64	0	0	4	Present	0.553
65	1	1	2	Present	0.931
66	0	0	3	Present	0.200

Patients 1–31 are controls without cancer, healthy controls (18–23C) and high-risk controls; patients 32–66 have cancer.

[a]All abnormalities of 3/3p22.1, if $<5=0$, if $>5=1$.

[b]All deletions and polysomies of 10/10q22.3, if $<2=0$, if $>2=1$.

[c]Cytologic diagnosis: 1, negative; 2, squamous metaplasia; 3, mild dysplasia; 4, moderate dysplasia and 5, severe dysplasia.