

Correction: *Tumour risks and genotype-phenotype correlations associated with germline variants in the succinate dehydrogenase subunit genes SDHB, SDHC, and SDHD*

Andrews KA, Ascher DB, Pires DEV, *et al.* Tumour risks and genotype-phenotype correlations associated with germline variants in the succinate dehydrogenase subunit genes *SDHB*, *SDHC*, and *SDHD*. *J Med Genet* 2018;55:384–94. doi: 10.1136/jmedgenet-2017-105127.

In this paper, Kaplan Meier analysis estimates of the combined penetrance of pheochromocytoma and paraganglioma (PPGL) and head and neck paraganglioma (HNPGL) was incorrectly reported. This was because of an error importing data into the statistical software R.

The following penetrance estimates were affected:

- ▶ The penetrance of PPGL/HNPGL in *SDHB* non-probands by age 60, reported as ‘21.8% (95% CI 15.2% to 27.9%)’, should read ‘22.5% (95% CI 15.9% to 28.6%)’ (see sentence 9 of abstract, sentence 2 of paragraph 4 under the section head ‘Age-related tumour risks’ of the results, and figure 2).
- ▶ The penetrance of PPGL/HNPGL in *SDHD* non-probands by age 60, reported as ‘43.2% (95% CI 25.4% to 56.7%)’, should read ‘50.0% (95% CI 31.2% to 63.7%)’ (see sentence 9 of abstract, and sentence 2 of paragraph 4 under the section head ‘Age-related tumour risks’ of the results).
- ▶ The penetrance of PPGL/HNPGL in *SDHB* probands and non-probands by age 60, reported as ‘58.4%’, should read ‘60.2%’ (see figures 1 and 2).
- ▶ The penetrance of PPGL/HNPGL in *SDHC* and *SDHD* probands and non-probands by age 60, reported as ‘66%’, and ‘74%’ respectively, should read ‘75%’, and ‘79%’ (see figure 1, panel entitled ‘PPGL & HNPGL’).
- ▶ The p value from log-rank testing comparing penetrance of PPGL/HNPGL in *SDHD* versus *SDHB*, reported as ‘0.032’, should read ‘0.0017’ (see sentence 1 of paragraph 2 under the section head ‘Age-related tumour risks’ of the results).
- ▶ The p value from log-rank testing comparing penetrance of PPGL/HNPGL in male versus female *SDHB* mutation carriers, reported as ‘0.0034’, should read ‘0.0087’ (see sentence 1 of paragraph 6 under the section head ‘Age-related tumour risks’ of the results, and online supplementary figure 4).
- ▶ The p value from log-rank testing comparing penetrance of PPGL/HNPGL in *SDHD* p.Pro81Leu versus other *SDHD*, reported as ‘0.62’, should read ‘0.81’ (see figure 4, panel entitled ‘PPGL & HNPGL’).
- ▶ The p value from log-rank testing comparing penetrance of PPGL/HNPGL in *SDHB* p.I127Ser versus other *SDHB* missense mutations, reported as ‘0.0047’, should read ‘0.02’ (see sentence 2 of paragraph 2 under the section head ‘Structure-phenotype correlations and mutation specific phenotypes’ of the results).
- ▶ The penetrance of PPGL/HNPGL in *SDHB* non-probands by age 80, reported as ‘44%’, should read ‘39%’ (see sentence 4 of paragraph 2 under the section head ‘Penetrance in non-probands’ of the discussion).

Neither the statistical significance of any result nor the conclusions drawn in the paper are affected by this error. Revised versions of figure 1, 2, 4 and supplementary figure 4 are also published along this correction article.

Figure 1 Penetrance of for clinically diagnosed disease in proband and non-proband *SDHB*, *SDHC* and *SDHD* mutation carriers with 95% CI shaded. HNPGL, head and neck paraganglioma; PPGL, pheochromocytoma and paraganglioma.

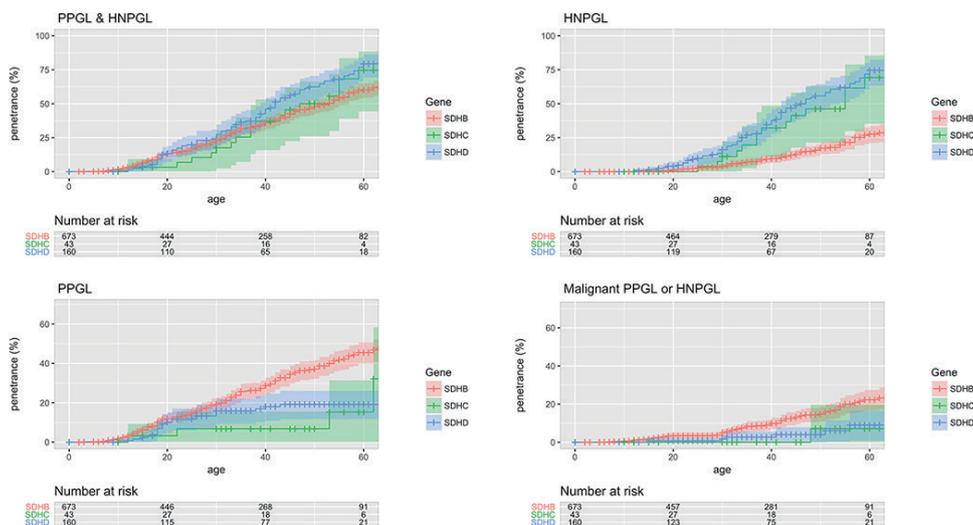


Figure 2 Penetrance of clinical disease in *SDHB* mutation carriers by age 60 years, as calculated by different statistical techniques and in different subpopulations. HNPGL, head and neck paraganglioma; PPGL, pheochromocytoma and paraganglioma; RCC, renal cell carcinoma.

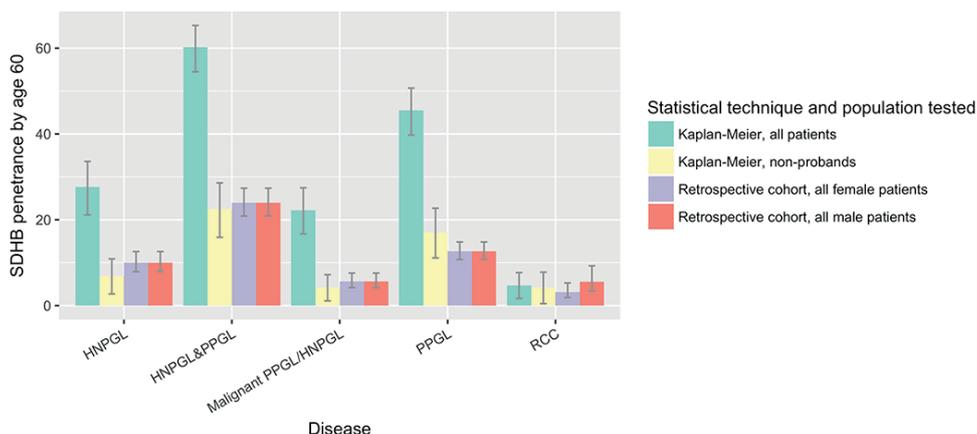
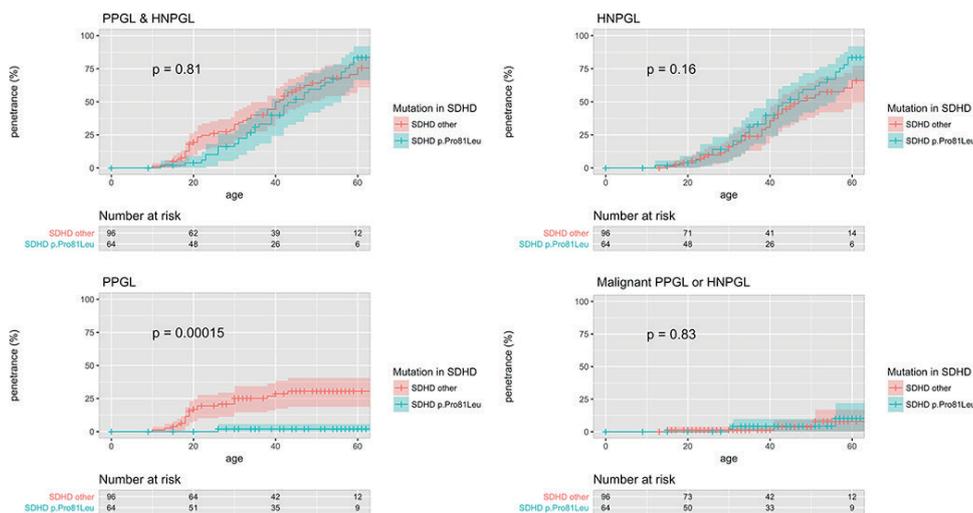
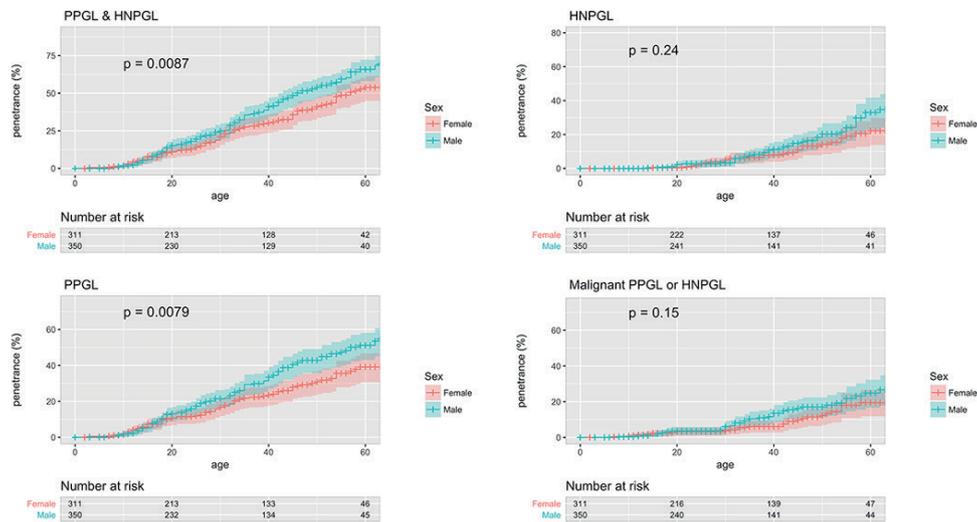


Figure 4 Penetrance of clinical disease in proband and non-proband *SDHD* p.Pro81Leu mutation carriers versus all other *SDHD* mutation carriers with 95% CI marked. P values are for the log-rank test comparing the survival distributions of *SDHD* p.Pro81Leu and all other *SDHD* mutation carriers. HNPGL, head and neck paraganglioma; PPGL, pheochromocytoma and paraganglioma.



Supplementary eFigure 4



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