

The 31-gene expression profile test stratifies melanoma-specific survival across histological subtypes in patients with cutaneous melanoma

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Background

- › Cutaneous melanoma (CM) histopathological subtypes, although not part of staging, differ in frequency and prognosis.¹
- › Superficial spreading tumors (~70% of CM) generally considered to have good outcomes, while nodular melanomas (~15%) are generally considered to be more aggressive.¹
- › However, within all subtypes, some patients have biologically aggressive and non-aggressive melanomas.
- › Tools to identify high- and low-risk patients, regardless of tumor subtype, are critical for personalized patient care. The 31-gene expression profile identifies patients at low (Class 1A), intermediate (Class 1B/2A), or high (Class 2B) risk of dying from their disease.²⁻⁴

Objective

Assess melanoma-specific survival (MSS) stratification by the 31-GEP among tumor subtypes

Methods

- › Registry data from the National Cancer Institute's Surveillance, Epidemiology and End Results (SEER) program were linked to data from patients with stage I-III CM clinically tested with the 31-GEP (n=13,560).³
- Survival was estimated using Kaplan-Meier analysis, and differences between groups were compared using the log-rank test.

Table 1. Patient Demographics

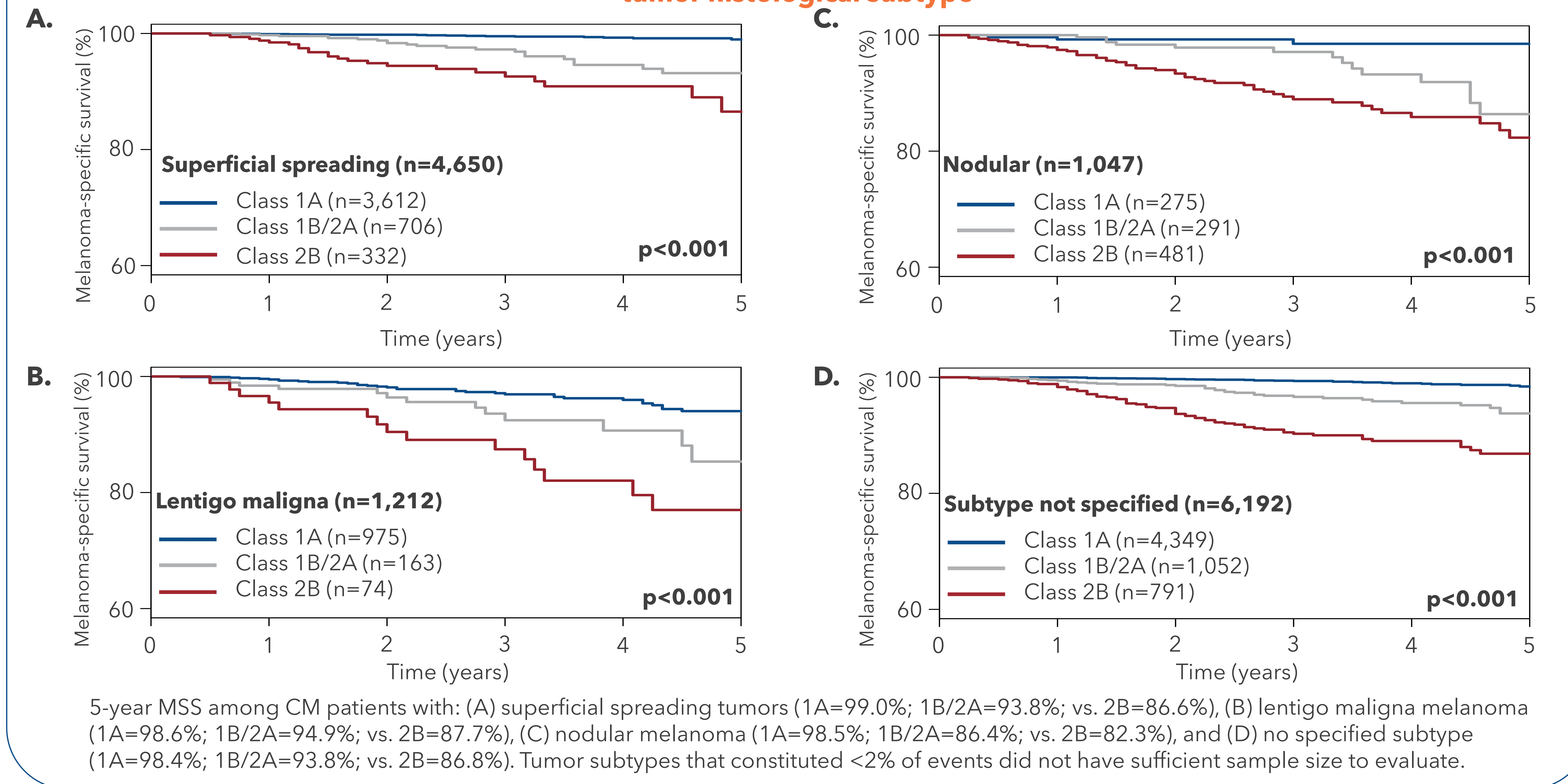
Descriptor	Combined (n=13,560)
Age, median (range)	62 (18-89)
Male	7649 (56.4%)
AJCC stage	
Stage IA	6595 (48.6%)
Stage IB	1767 (13.0%)
Stage IIA	946 (7.0%)
Stage IIB	578 (4.3%)
Stage IIC	182 (1.3%)
Stage III	1105 (8.1%)
Not specified	2387 (17.6%)
Tumor Subtype	
Superficial Spreading	4650 (34.3%)
Lentigo Maligna	1212 (8.9%)
Nodular melanoma	1047 (7.7%)
Desmoplastic	198 (1.5%)
Spitz Melanoma	142 (1.1%)
Acral	94 (0.7%)
Blue Melanoma	23 (0.2%)
Balloon Cell Melanoma	2 (0.01%)
Malignant melanoma, NOS	6192 (45.7%)

Acknowledgments & Disclosures

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Results

Figure 1. The 31-GEP identifies patients at low (Class 1A) and high (Class 2B) risk of mortality regardless of tumor histological subtype



Clinical Impact

- › Regardless of tumor subtype, the personalized risk stratification by the 31-GEP provides significantly greater clarity in overall risk, improving patient care treatment plan decisions and, thus, outcomes.

Conclusions

- › In a large, real-world cohort of patients with stage I-III CM, the 31-GEP stratified MSS among patients with superficial spreading, lentigo maligna, and nodular melanoma in addition to those with no tumor subtype specified.

References

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