



Identification of patients at high risk for relapse by Merlin Assay (CP-GEP) in an independent cohort of melanoma patients (pts) that did not undergo sentinel lymph node biopsy: a H&N subgroup analysis.

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Introduction & Objectives: Sentinel lymph node biopsy (SLNB) is still the gold standard for nodal assessment used in the clinical staging of cutaneous melanoma (CM) pts by AJCC v8. Recently, we showed in a small cohort that CP-GEP also has the potential to risk stratify pts who did not undergo SLNB in low and high-risk for recurrence (Amaral et al, EJC 2023). SLNB may be challenging in pts with head and neck (H&N) melanoma, due to the regional course of cranial nerves and lymphatic drainage. Here we focus on the ability of CP-GEP to stratify pts with H&N melanoma, who did not undergo SLNB, for their risk of recurrence.

Materials & Methods: We analyzed formalin-fixed paraffin-embedded primary tumor samples of 451 pts with stage I/II CM diagnosed between 2000-2017, included in the Central Malignant Melanoma Registry, who did not receive SLNB. The CP-GEP model used combines the expression of 8 genes (SERPINE2, GDF15, ITGB3, CXCL8, LOXL4, TGFBR1, PLAT and MLANA) by quantitative reverse transcription polymerase chain reaction with age and Breslow thickness to obtain a binary output: CP-GEP Low- or High-Risk. Relapse-free survival (RFS), distant metastasis free survival (DMFS) and Melanoma Specific Survival (MSS) were evaluated using Kaplan-Meier curves.

Results: We included 451 pts (stage IA-IIIC), 40% were females, median age was 63-year-old, median Breslow thickness was 0.5 mm and 20% (n=90) were diagnosed with H&N melanoma. An interim analysis was performed on samples from 159 pts showing the following survival: 5-year RFS 85.8%, DMFS 94.1 and MSS 95.7%. Survival analysis for pts with H&N melanoma is currently being conducted and will be presented at the time of the congress.

Conclusions: CP-GEP has the potential to risk stratify pts with early-stage melanoma that did not undergo SLNB based on their risk for long-term survival. Pts with CP-GEP Low-Risk have a good long-term survival compared to High-Risk pts even though SLN status was not assessed, and this seems to be true also for pts with H&N melanoma. This may allow the clinicians to skip SLNB in this difficult anatomic localization.

