

**Online Table 1: Semiquantitative histologic score used to facilitate correlation between histologic tumor architecture and ADC histograms**

Semiquantitative Histologic Score <sup>a</sup>	Histopathologic Features
Score 1 (most heterogeneous microarchitecture)	Well differentiated, keratinizing, very abundant stromal component, highly variable areas of necrosis
Score 2	Well to moderately differentiated, keratinizing, abundant stromal component, variable areas of necrosis
Score 3	Moderately differentiated, keratinizing, moderate stromal component, areas of necrosis
Score 4	Moderately to poorly differentiated, focal keratinization, scant stromal component, small areas of necrosis and scattered comedonecrosis
Score 5 (most homogeneous microarchitecture)	Poorly differentiated, nonkeratinizing, very scant stromal component, scattered comedonecrosis

<sup>a</sup> Score 1 corresponded to the most heterogeneous HNSCCs, whereas score 5 corresponded to the most homogeneous tumors.

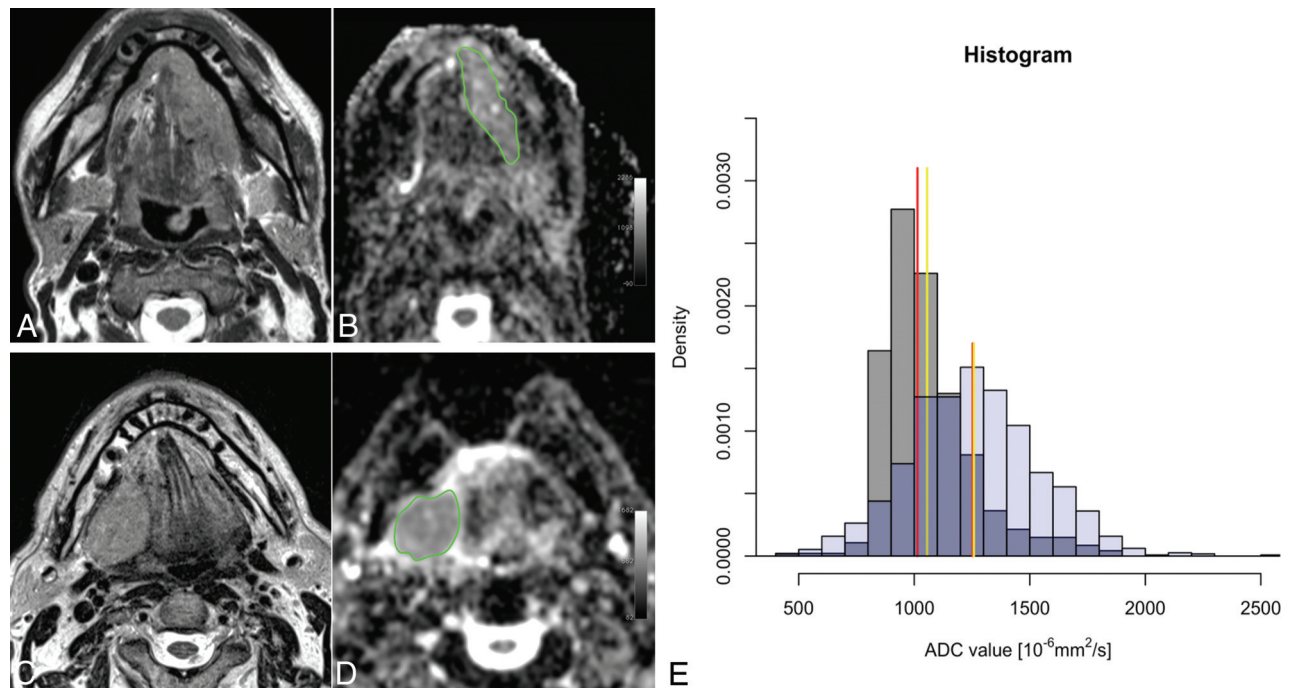
**Online Table 2: Correlation between HPV status, ADCmean, and prognostic factors**

	Odds Ratio	95% CI	P Value
ADCmean <sup>a</sup>	1.5370	(1.0754–2.3106)	.0254
Age	0.9745	(0.9010–1.0515)	.5056
Sex <sup>b</sup>	1.5968	(0.4233–5.9116)	.4798
Localization <sup>c</sup>	3.9290	(0.9771–19.9770)	.0671
T	1.0796	(0.5452–2.1746)	.8253
N	1.1587	(0.5473–2.5240)	.7007
Degree of keratinization	1.5917	(0.7093–3.7201)	.2626
Semiquantitative histologic score	1.6313	(0.8458–3.4372)	.1617

<sup>a</sup> ADCmean categorized by steps of  $100 \text{ U} \times 10^{-6} \text{ mm}^2/\text{s}$ .

<sup>b</sup> Categorized as male (baseline) or female.

<sup>c</sup> Categorized as oral cavity (baseline) or oropharynx.



**ON-LINE FIGURE.** Characteristic ADC histograms obtained in 2 different patients with HNSCC of the oral cavity. Patient A (T2N1M0, images A, B, and E) has an HPV – HNSCC originating in the left floor of the mouth. Patient B (T2N1M0, images C, D, and E) has an HPV+ HNSCC originating from the right lateral tongue border. T2-weighted images (A and C), ADC maps (B and D), and corresponding histograms (E, *gray histogram* for HPV+ HNSCC and *blue histogram* for HPV – HNSCC). Median ADC values are represented by *red lines*. Mean ADC values are represented by *yellow lines*. Note the similar ADC histogram shapes as in HNSCC of the oropharynx (Fig 4): symmetric histogram (*blue*) with widely distributed ADC values around the central line in HPV – HNSCC as opposed to leptokurtic skewed right histogram (*gray*) in HPV+ HNSCC.