

Pomen okužbe s HPV v razvoju karcinoma glave in vratu

dr. Nina Zidar

Inštitut za patologijo

Medicinska fakulteta

Univerza v Ljubljani



INSTITUTE OF PATHOLOGY

UNIVERSITY OF LJUBLJANA • FACULTY OF MEDICINE

Vsebina

- HPV in karcinom ustnega žrela
- HPV in sinonazalni karcinom
- Diagnostika HPV okužbe
- HPV in karcinom grla in ustne votline

HPV-poz. ploščatocelični karcinom
ustnega žrela

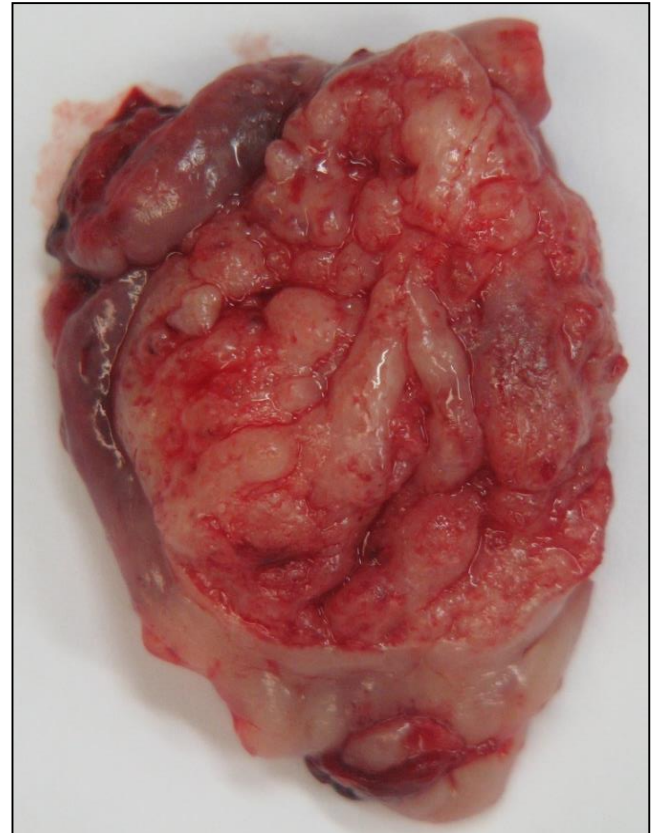
| Characteristics | HPV-positive SCC | HPV-negative SCC |
|-----------------------------------|--|---------------------------|
| Median age | 50-56 years | 60-70 years |
| Risk factors | Sexual behaviour | Smoking and alcohol abuse |
| Lymph node metastases | Frequently cystic | Uncommonly cystic |
| Postulated origin | Reticulated epithelium of invaginated crypts | Surface epithelium |
| Dysplasia | Rare | Often present |
| Morphology | Commonly non-keratinizing | Conventional SCC |
| Grading | Not applicable | Applicable |
| p16 immunohistochemistry | Positive | Negative |
| Overall survival (3 years) | 82% | 57% |

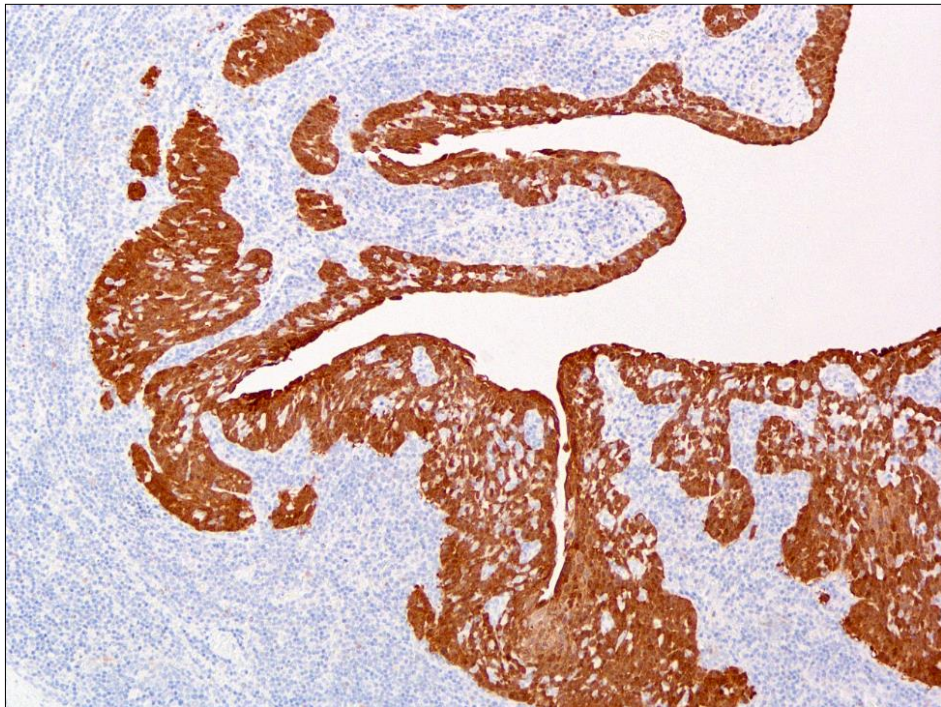
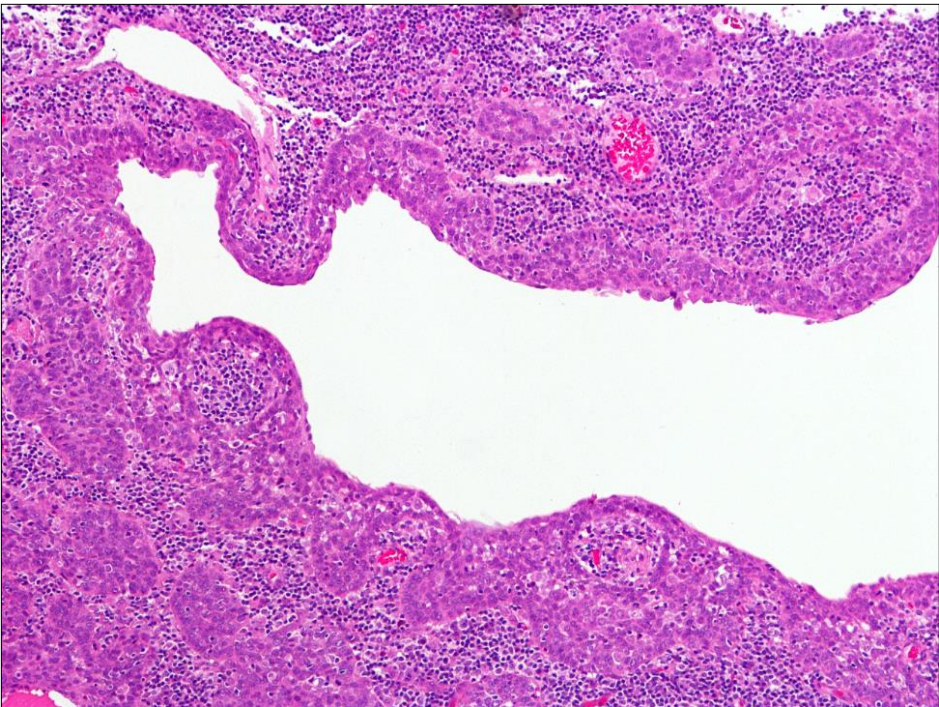
El-Naggar AK, Chan JKC, Grandis JR, Takata T, Slootweg PJ, eds. WHO Classification of Head and Neck Tumours. 4th ed. IARC: Lyon; 2017

HPV-poz. karcinom ustnega žrela

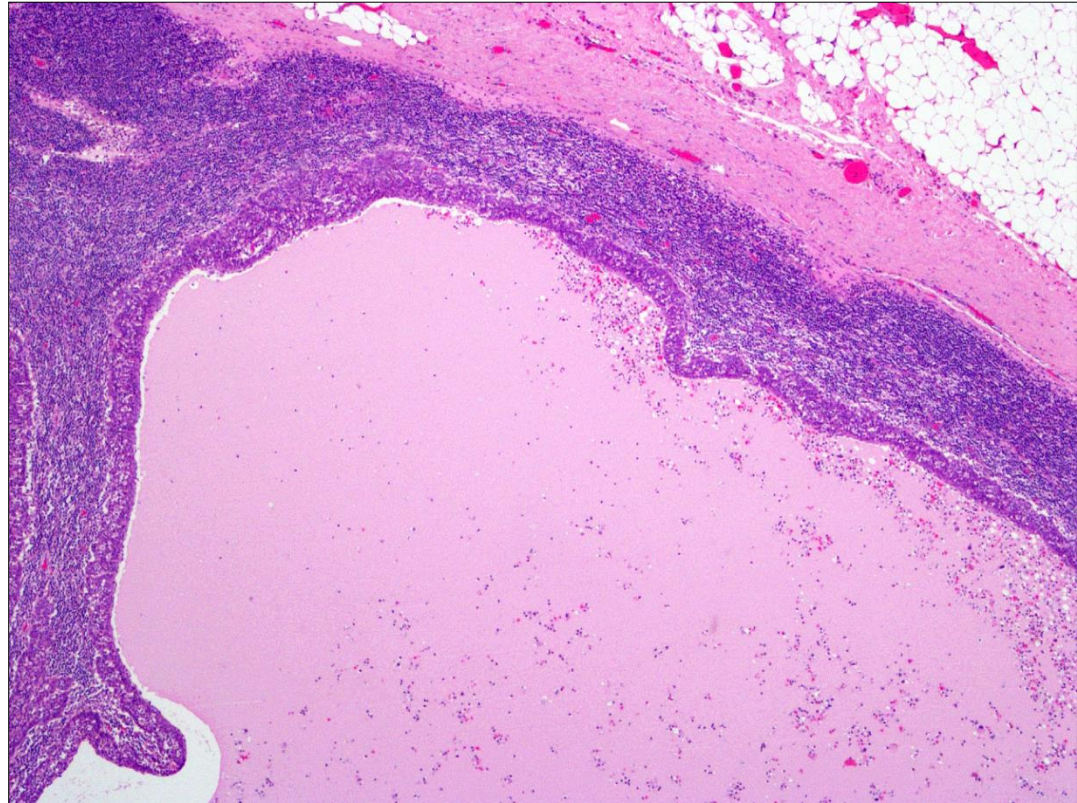
- HPV16 (85%), 18, 31, 33, 35, 39, 45, 51, 52, 56, 59, 68, 69, 73,
- 35-80 % v ZDA, 13-20 % v nekaterih evropskih državah
- pri mlajših bolnikih
- ni povezave s kajenjem in uživanjem alkohola
- povezava s spolnimi navadami
- palatinalna in lingualna tonzila, neporoženevajoča morfologija
- zgodaj zaseva v področne bezgavke
- odličen odgovor na obsevanje
- boljša prognoza: preživetje: 85% za HPV+ PK, 50% za HPV neg PK

Ang KK, Harris J, Wheeler R et al. HPV and survival of patients with oropharyngeal cancer. N Engl J Med 2010; 363: 24-35





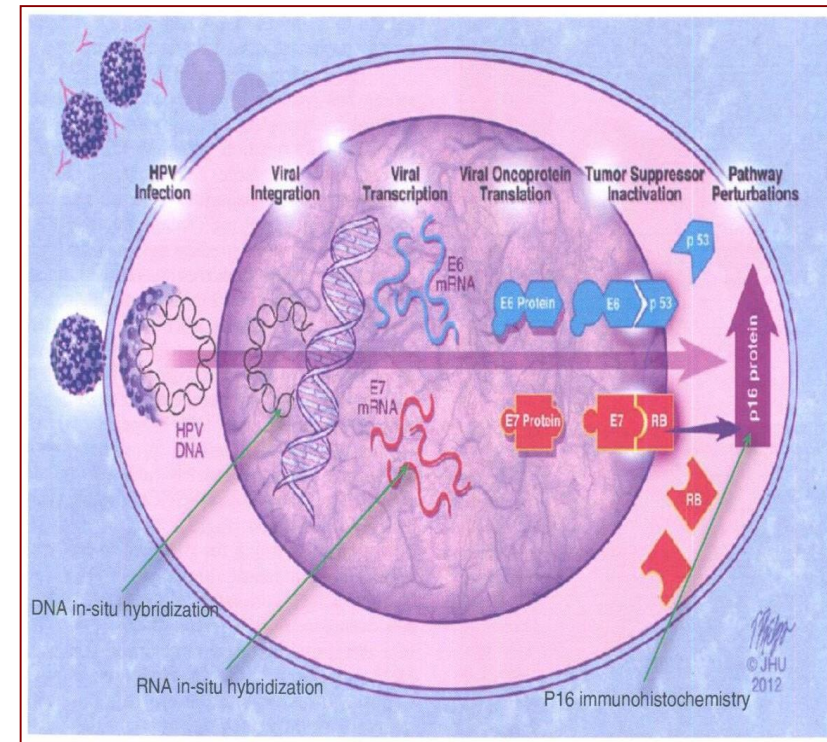
Cistični zasevki v bezgavkah



Diagnostika HPV-poz. karcinomov

Patogeneza HPV-poz. karcinoma

- HPV integracija v genom gostitelja
- ekspresija virusne mRNA
- translacija virusnih onkoproteinov
- porušena tumor supresorska pot
- virusna E6 in E7: inhibicija p53 in Rb
- prekomerno izražanje p16



Diagnostika HPV-poz. karcinoma

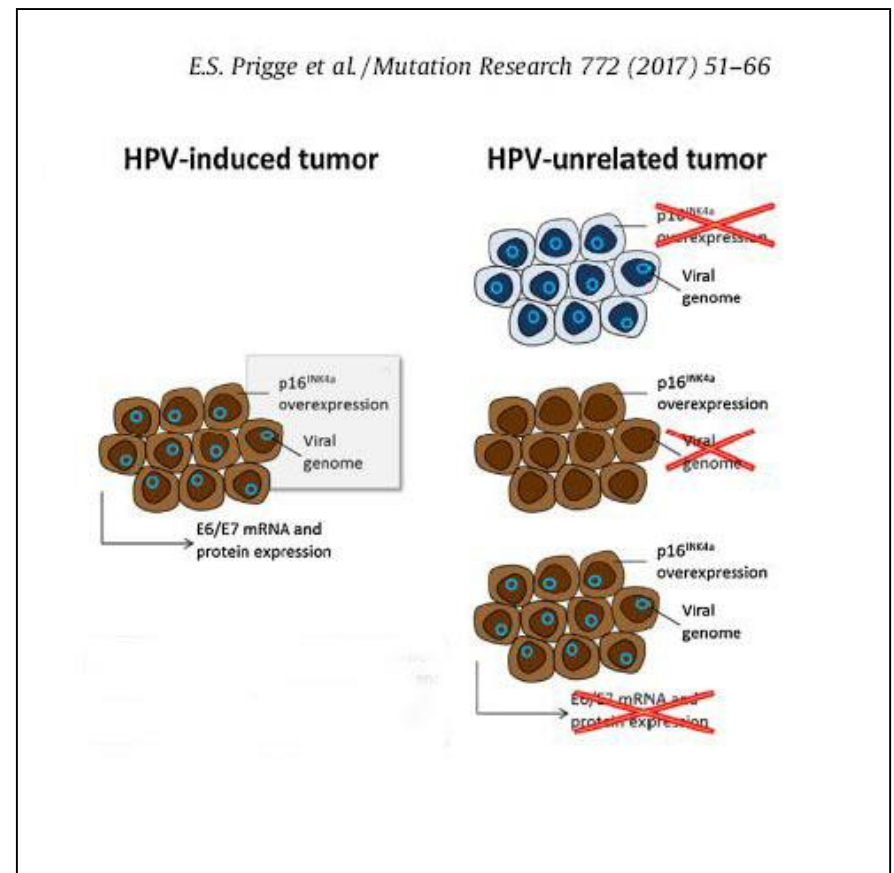
prekomerno izražanje

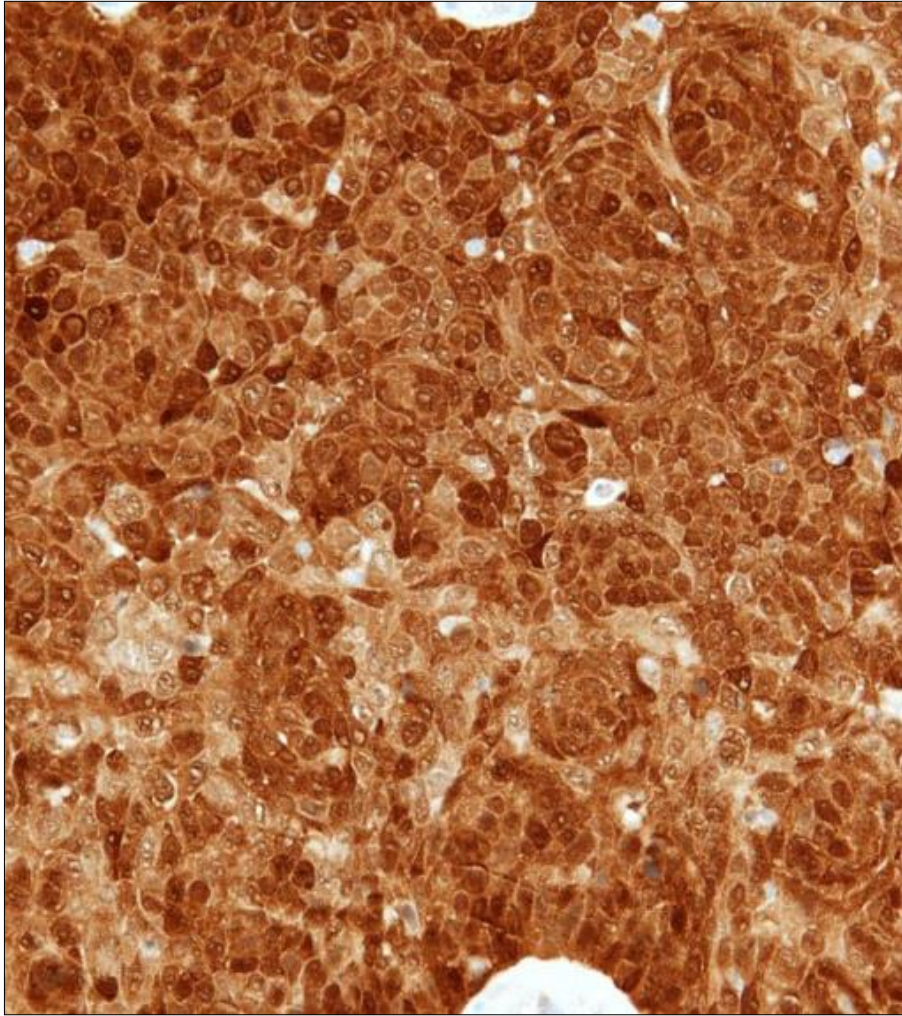
p16^{INK4}

+

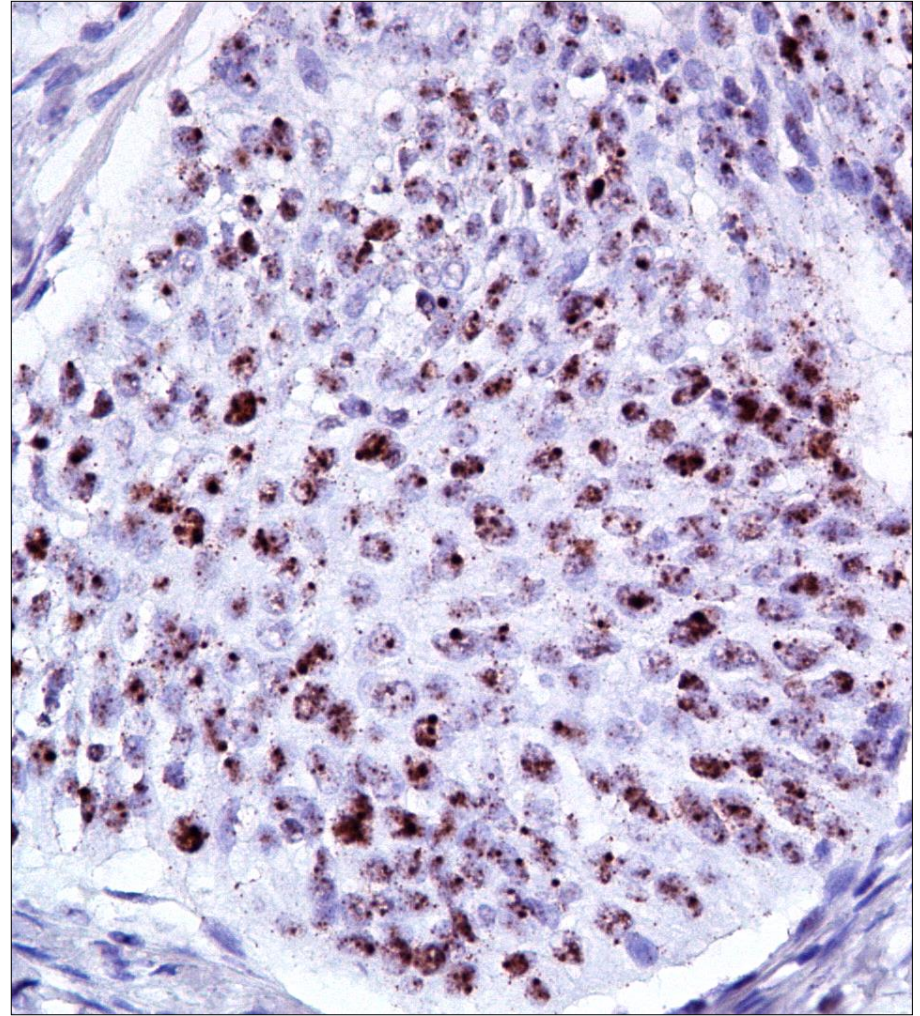
izražanje E6/E7 mRNA

visokorizičnih HPV





p16

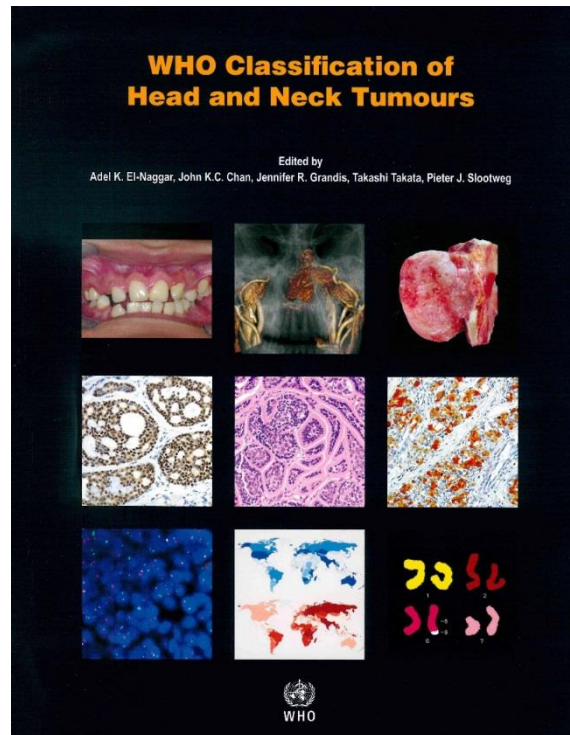


E6/E7 mRNA in situ hibr.

HPV-poz. karcinom nosne votline in obnosnih sinusov

HPV in sinonazalni karcinom

- 2. najpogostejša lokacija v področju glave in vratu
- HPV v 20-30 % sinonazalnih tumorjev
- HPV 16, 18, 31, 33
- neporoženevajoč sinonazalni PK (41%)
- poroženevajoč sinonazalni PK (5%)
- ostali tumorji (papilarni, bazaloidni, adenoskvamozni, nevroendokrini karcinom)



HPV- poz. sinonazalni ploščatocelični karcinom ni posebna klinično-patološka entiteta.

Prognostični pomen HPV v
sinonazalnem karcinomu ???

Boljša prognoza HPV-poz. sinonazalnih karcinomov?

Alos L, Moyano S, Nadal A et al. HPV are identified in a subgroup of sinonasal squamous cell carcinomas with favorable outcome. *Cancer* 2009; 115:2701-9

Bishop JA, Guo TW, Smith DF et al. HPV-related carcinomas of the sinonasal tract. *Am J Surg Pathol* 2013; 37:185-92

Laco J, Sieglová K, Vošmiková H et al. The presence of high-risk HPV E6/E7 mRNA transcripts in a subset of sinonasal carcinomas is evidence of involvement of HPV in its etiopathogenesis. *Virchows Arch* 2015; 467:405-15

HPV in karcinom grla in ustne votline

Prevalenca HPV v karcinomu grla in ustne votline: <4%

J Cancer Res Clin Oncol

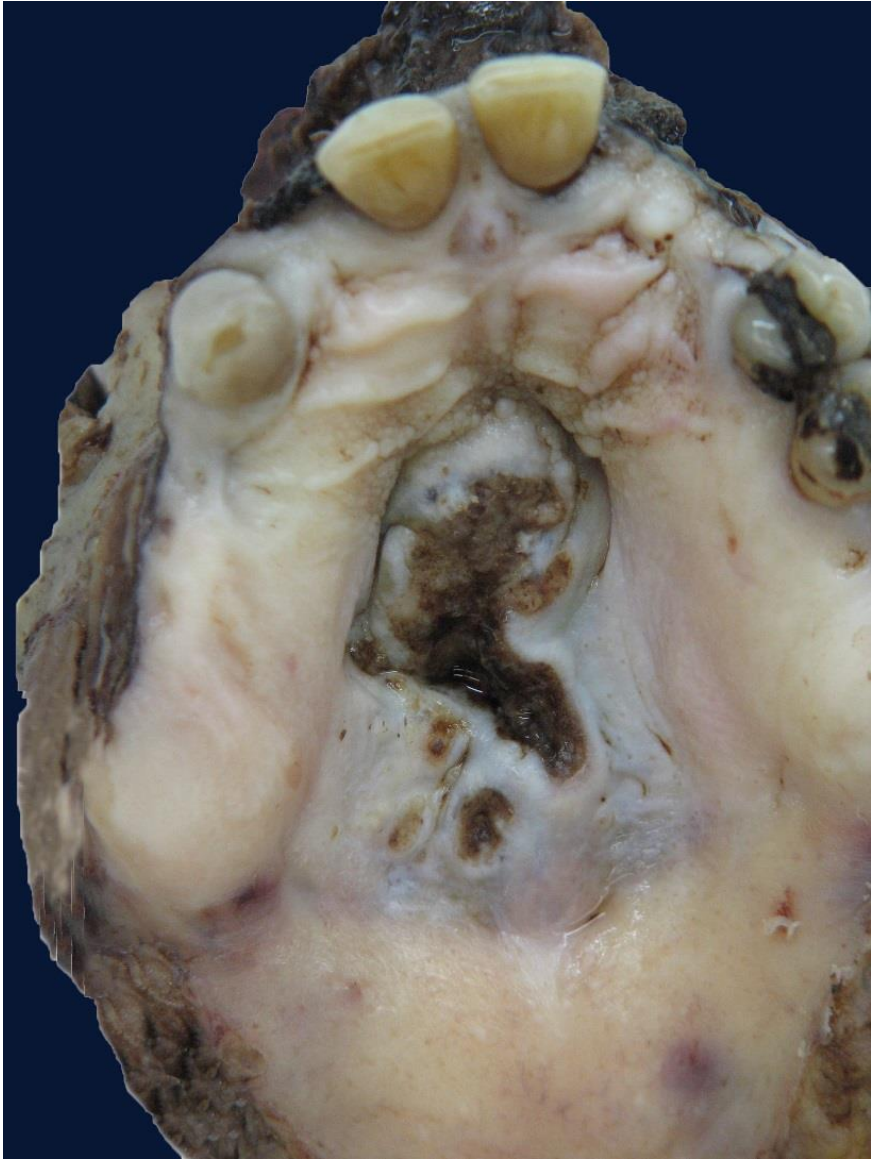
DOI 10.1007/s00432-017-2481-8

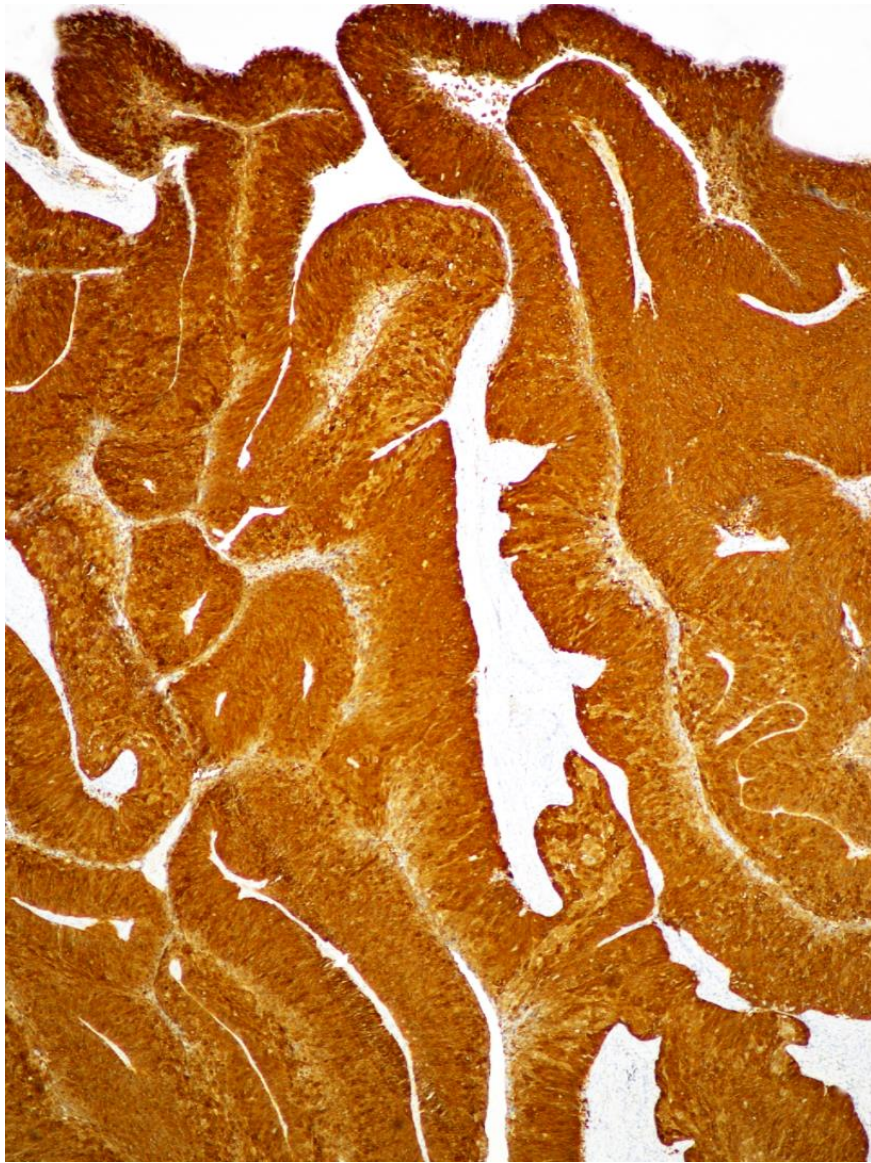
ORIGINAL ARTICLE – CLINICAL ONCOLOGY

**Prognostic implications of human papillomavirus status
for patients with non-oro-pharyngeal head and neck squamous cell
carcinomas**

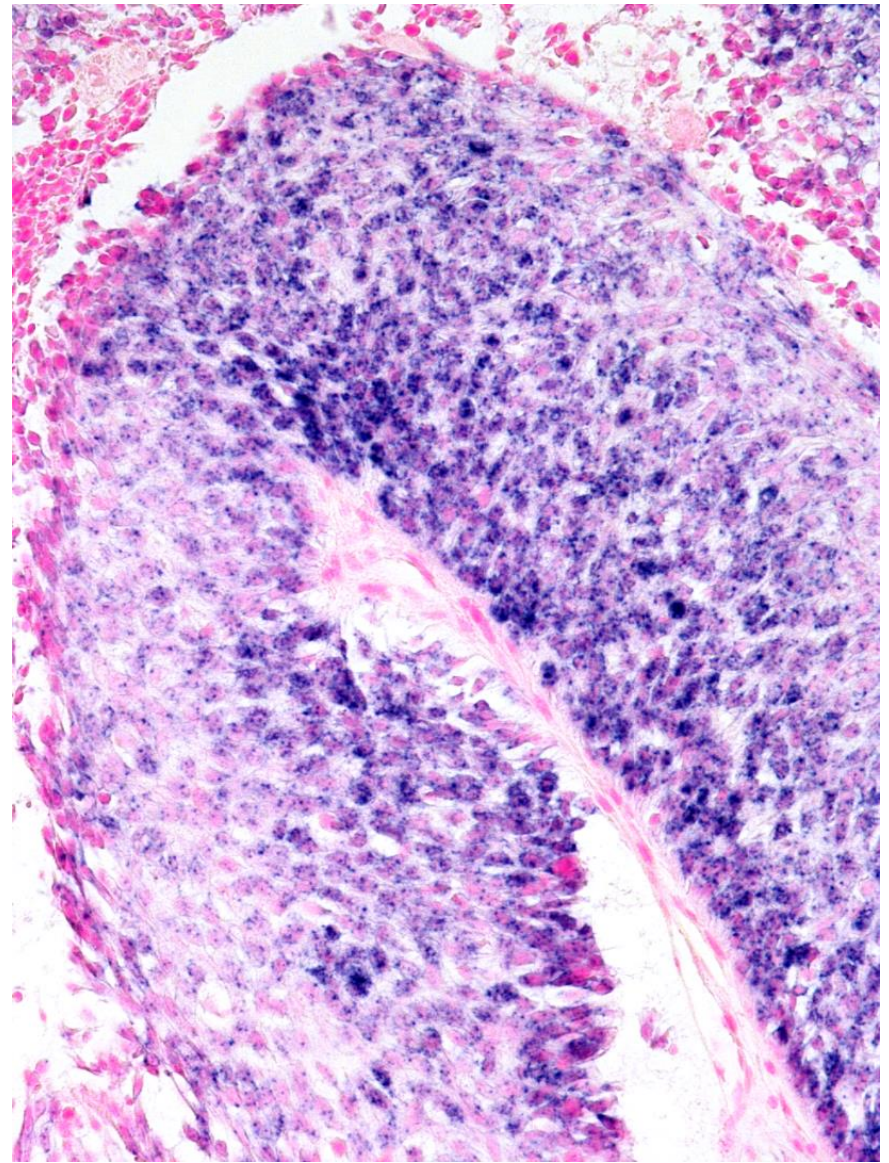
Huaising C. Ko¹ · Paul M. Harari¹ · Ryan M. Sacotte² · Shuai Chen³ ·
Aaron M. Wieland⁴ · Menggang Yu³ · Andrew M. Baschnagel¹ · Justine Y. Bruce⁵ ·
Randall J. Kimple¹ · Matthew E. Witek¹

Overall survival was significantly higher for patients with HPV-
pos. versus HPV-neg. non-oro-pharyngeal SCC.



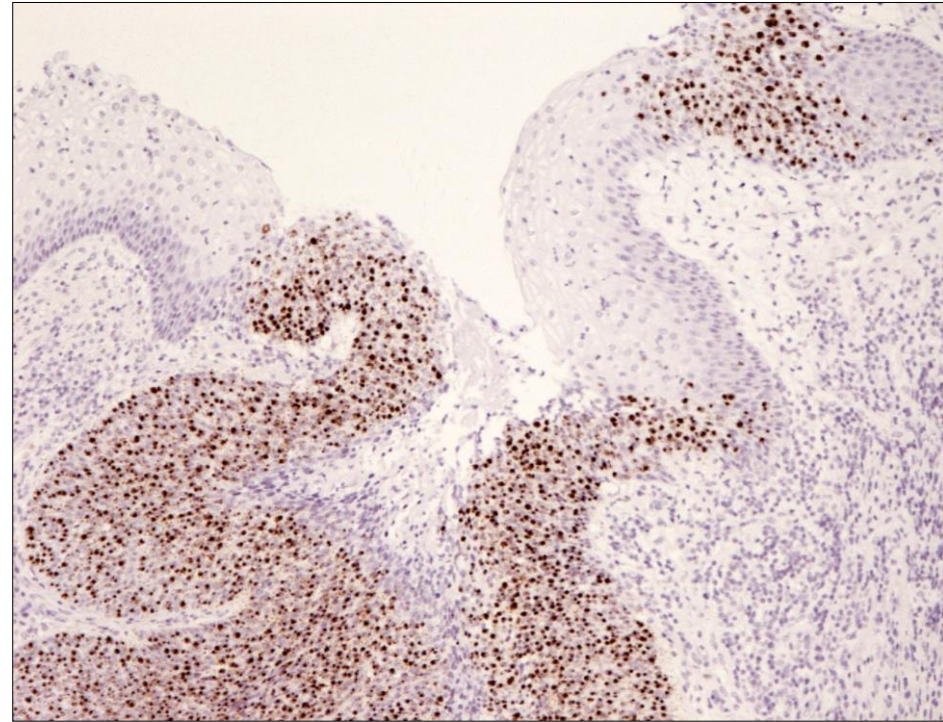
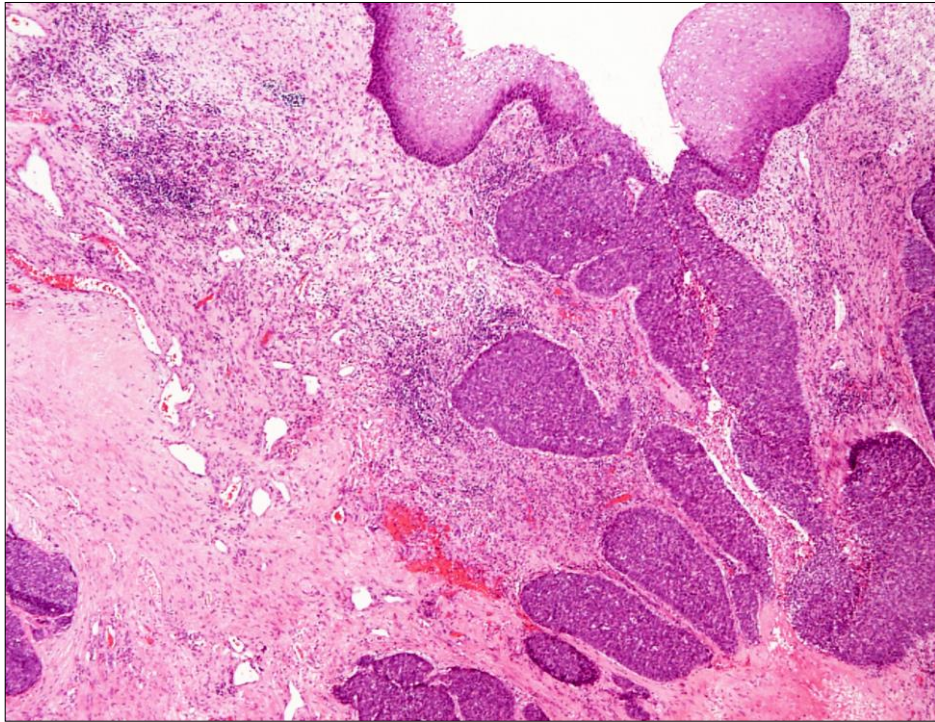


p16



HPV 16,18

HPV v grlu



In situ hibr. E6/E7 visokorizičnih HPV