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Ulceration in the gastric stump of a 74-year-old male

7th International Course on Digestive Pathology

Bucharest Nov 7-8, 2014

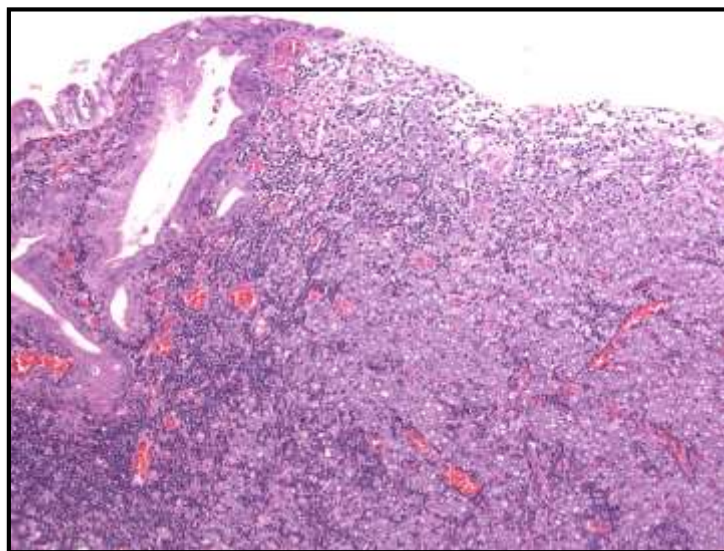


Cord Langner MD
Institute of Pathology
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www.medunigraz.at/ENGIP

H&E Histology



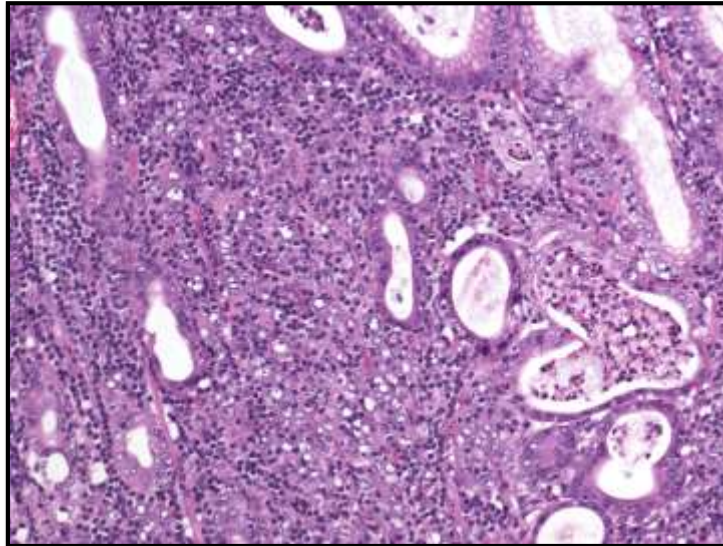
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H&E Histology



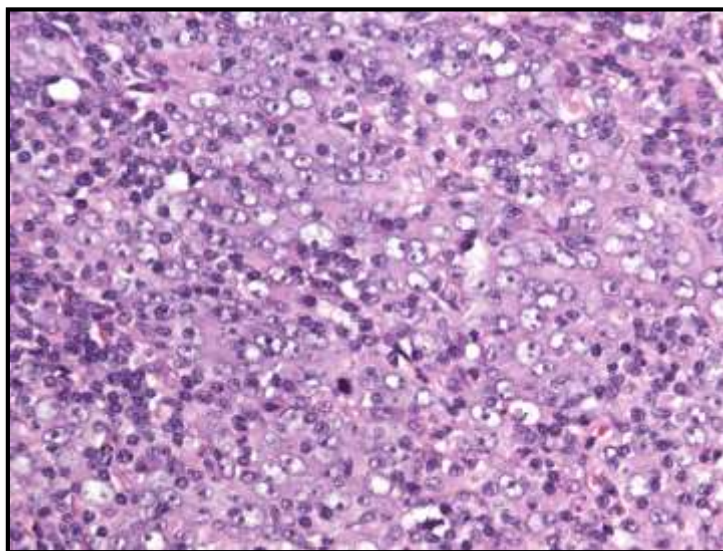
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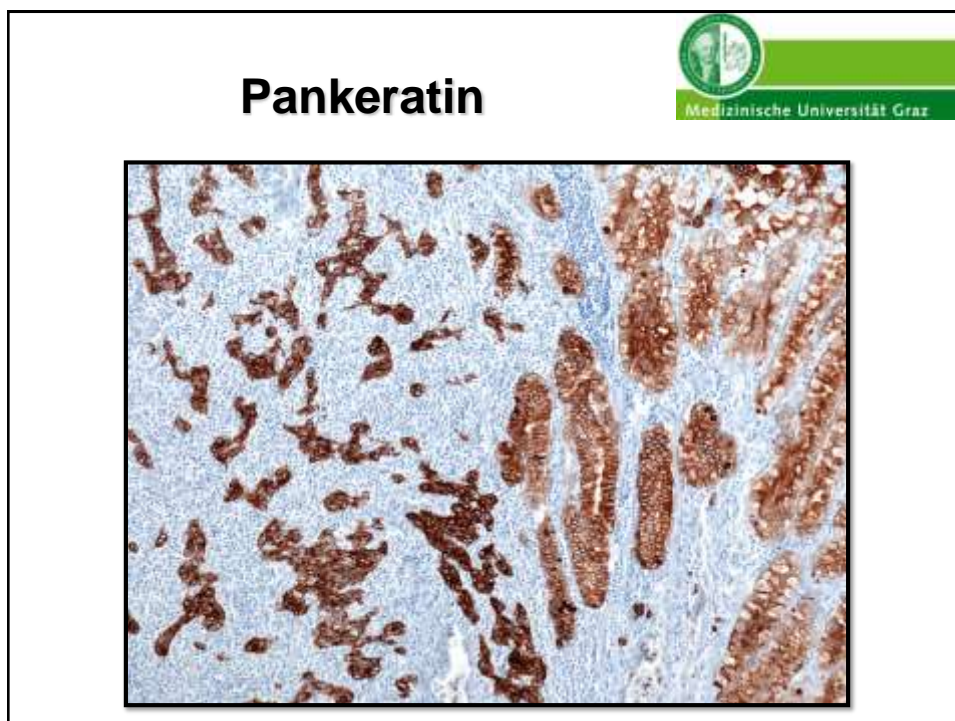
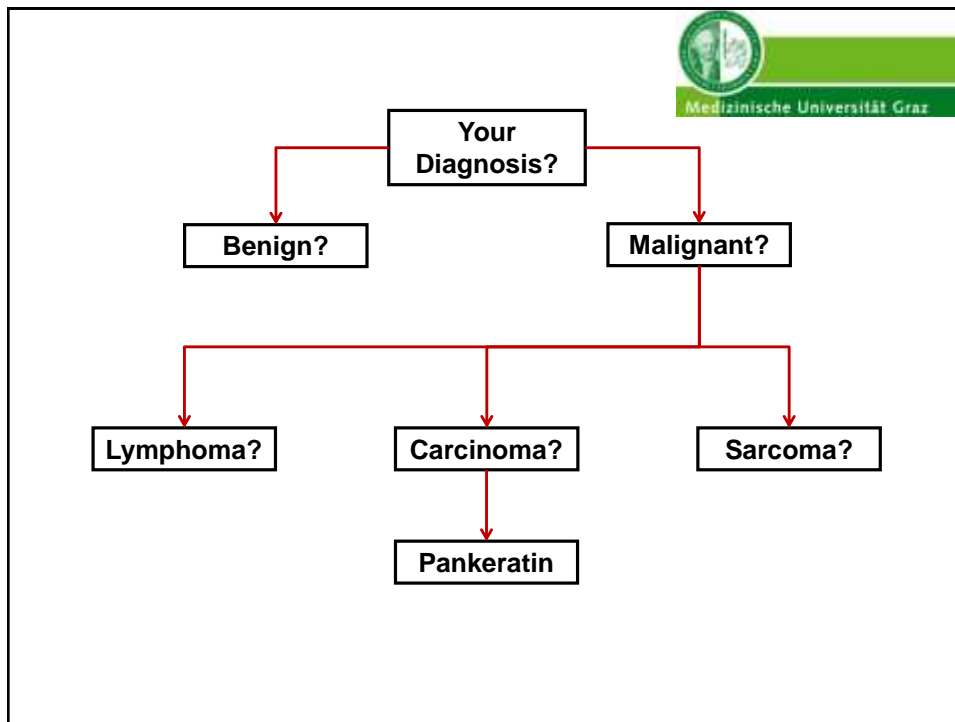


H&E Histology

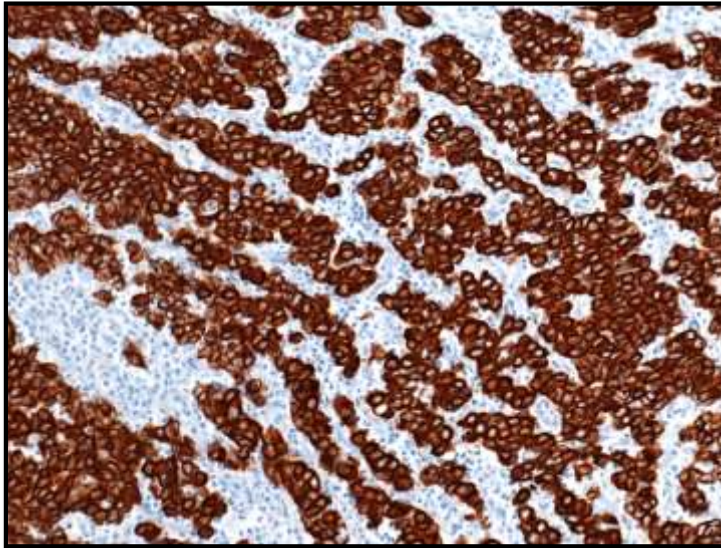


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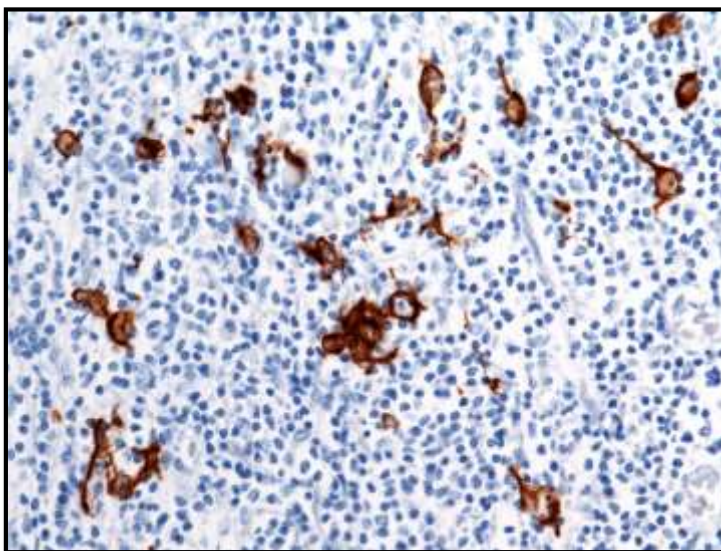




Pankeratin



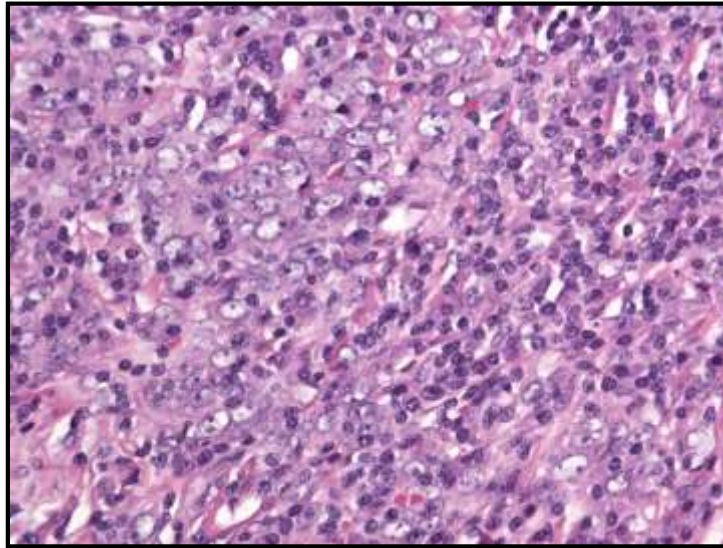
Pankeratin



H&E Histology



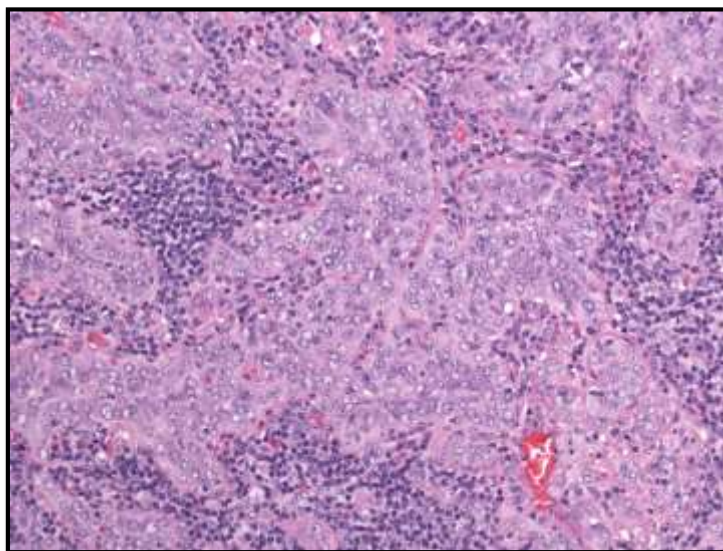
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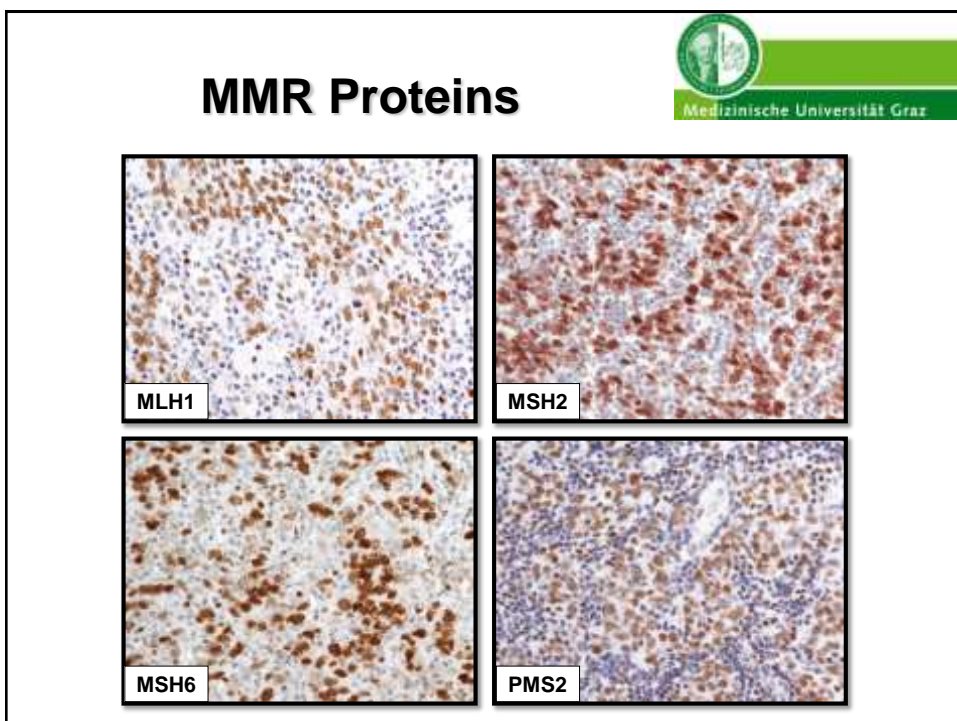
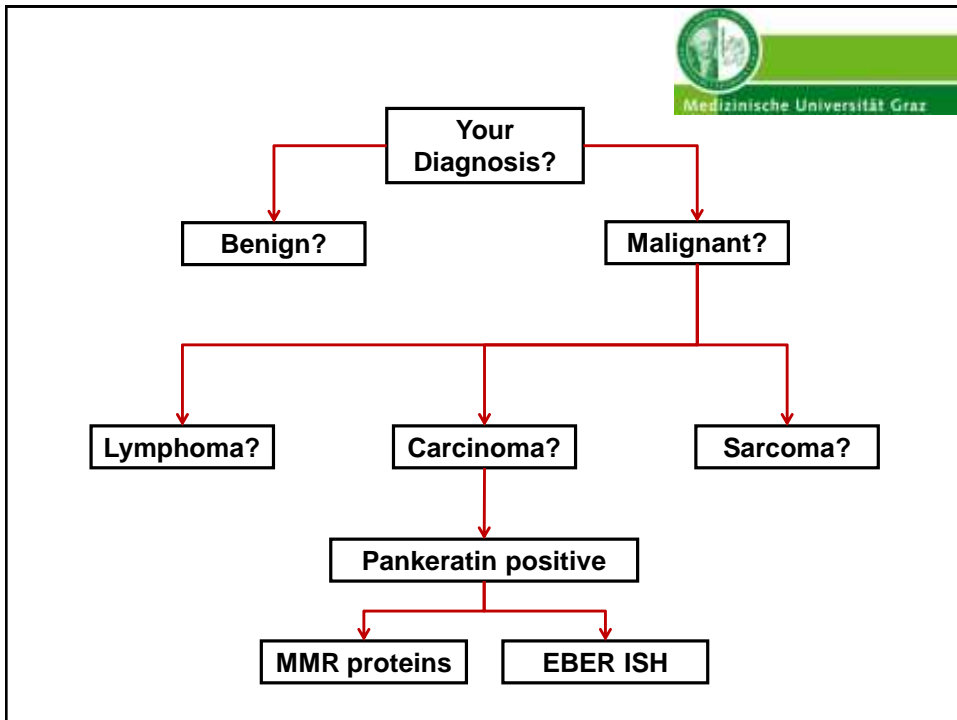


H&E Histology



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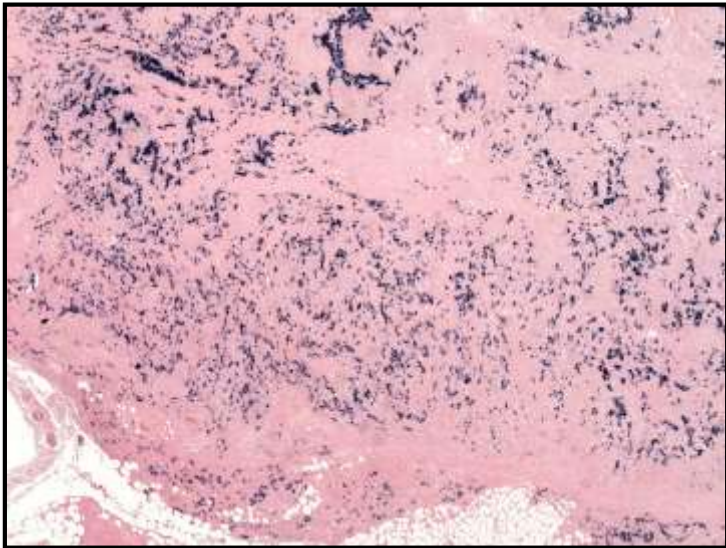




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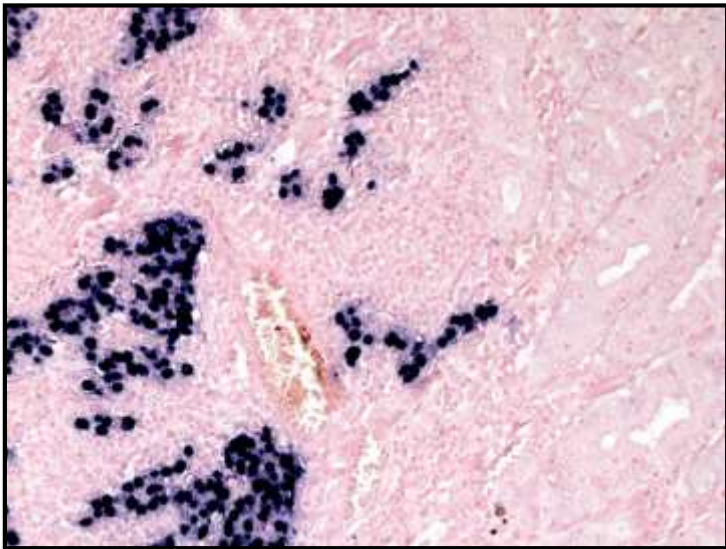
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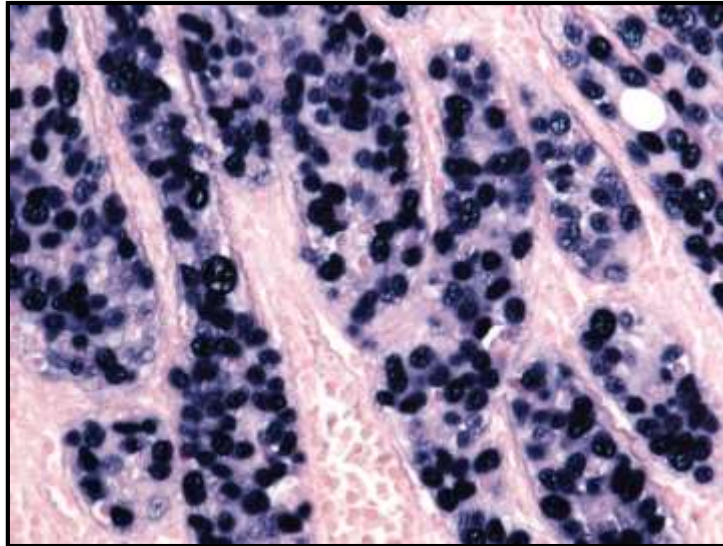
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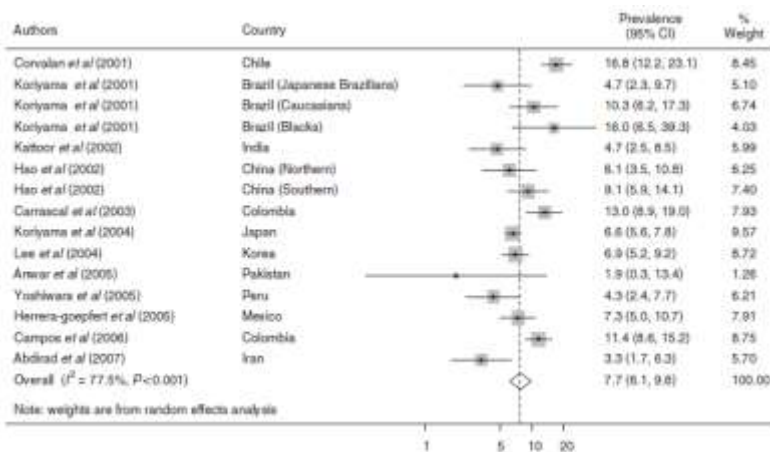
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Diagnosis

EBV associated gastric cancer
with prominent lymphoid stroma
(lymphoepithelioma-like
carcinoma)

Determinants of Epstein-Barr virus-positive gastric cancer: an international pooled analysis

MC Castaño^{1,2}, G Murphy³, C Kariyama⁴, RM Pfeiffer⁵, WH Kim⁶, R Herrera-Gogfieri⁷, AH Concalan⁸, E Carrasco⁹, A Abdraz¹⁰, M Anwar¹¹, Z Hao¹², J Katoor¹³, E Yoshiwara-Wakabayashi¹⁴, Y Eisuru¹⁵, CS Rabkin¹⁶ and S Akiba¹⁷



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Table 3 Odds ratios (95% confidence intervals)^a of gastric cancer EBV positivity for males compared with females, by anatomic subsite and age

	Anatomic subsite	
	Antrum	Non-antrum
Age in years		
20	6.1 (2.1–17.9)	12.4 (4.6–33.4)
40	3.3 (1.6–6.6)	6.7 (3.7–12.1)
60	1.8 (1.1–2.9)	3.6 (2.4–5.3)
80	0.9 (0.5–1.8)	1.9 (1.0–3.6)

Abbreviation: EBV = Epstein-Barr virus. ^aEstimates adjusted for geographic region, histologic type, diagnostic stage, and period of diagnosis.

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Review Series of the Upper Gastrointestinal Tract

Epstein-Barr virus-associated gastric carcinoma

Masashi Fukayama*, Tetsuo Ushiku

Department of Pathology and Diagnostic Pathology, Graduate School of Medicine, The University of Tokyo, Hongo 7-3-1, C, Bunkyo-ku, Tokyo 113-0033, Japan

EBV-infected B lymphocytes

Clonal growth

Reactivation

Infection

Stomach epithelial cells

Cell lysis

CLDN18+3- cells (mucin: gastric/intestinal type)
EBNA1+, EBER+, LMP2A+

Abnormality of intracellular signals
CpG island methylator phenotype (CIMP)

Immunomodulating molecules

Cancer development
invasion

WJG World Journal of Gastroenterology

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www.wjg.com

WJG 2017 Anniversary Special Issues (8): Gastro cancer

DNA methylation in gastric cancer, related to *Helicobacter pylori* and Epstein-Barr virus

Kensuke Hatazaka, Sayaka Furuta, Masashi Fukayama, Atsushi Kaneda

Cooperation with *H. pylori*

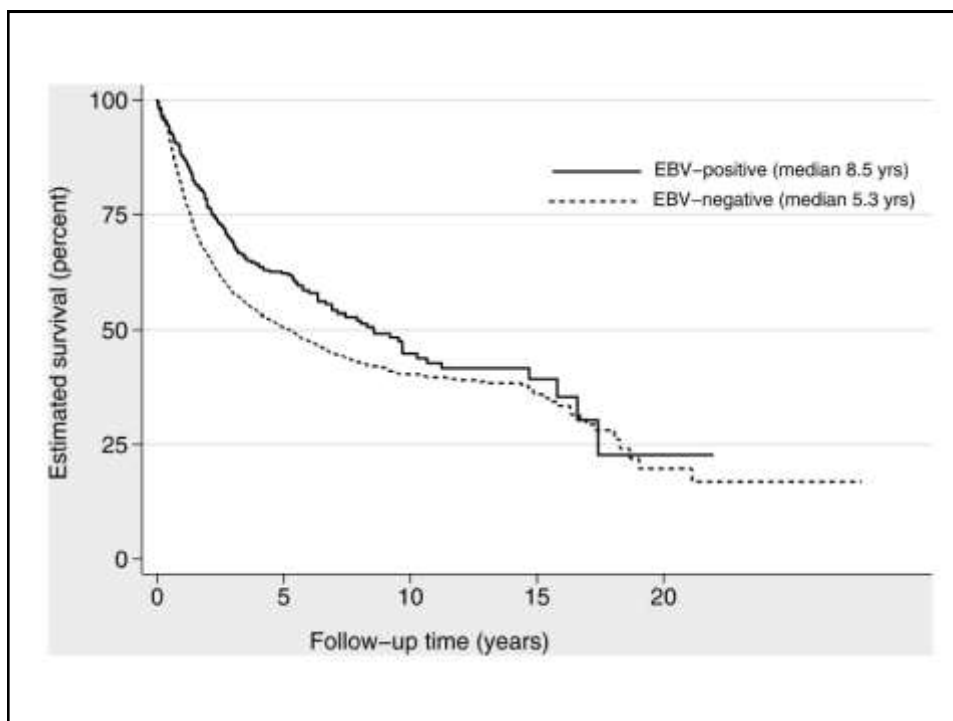
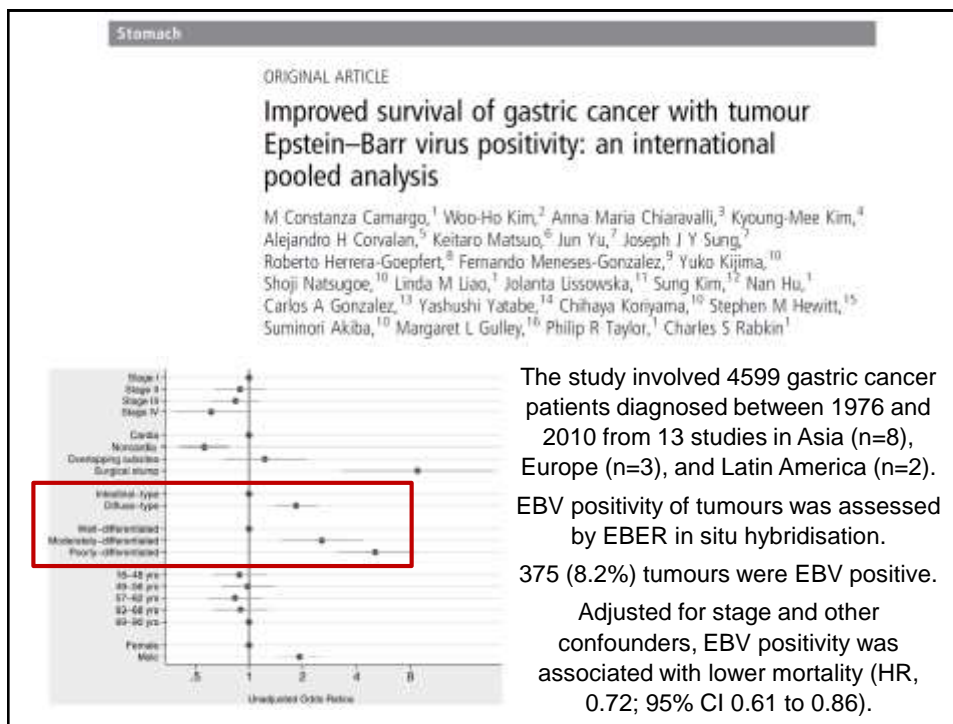
Chronic inflammatory

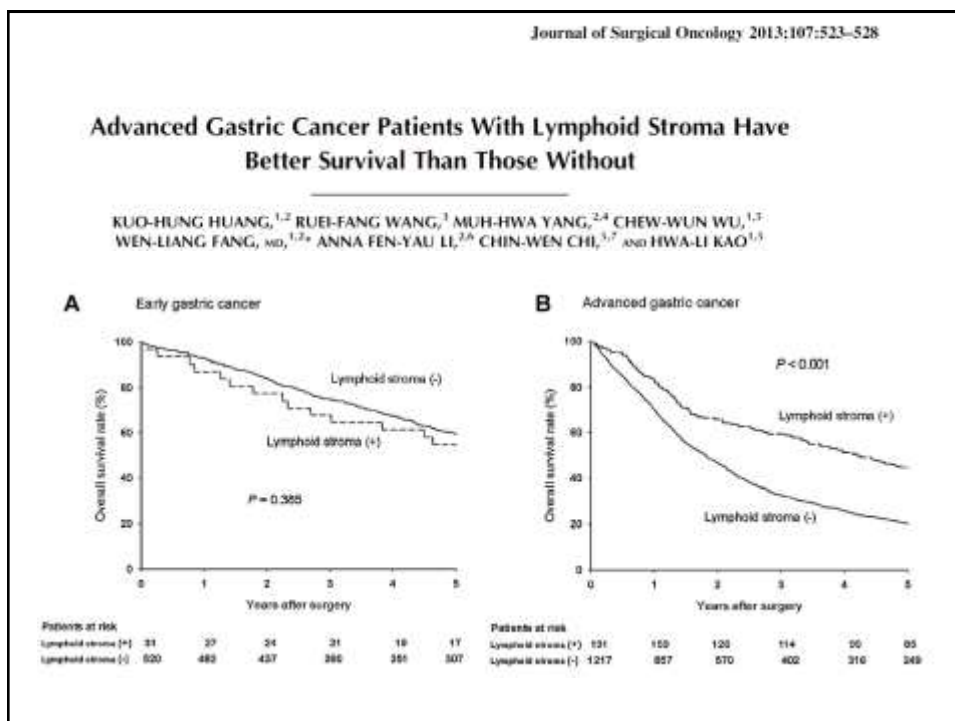
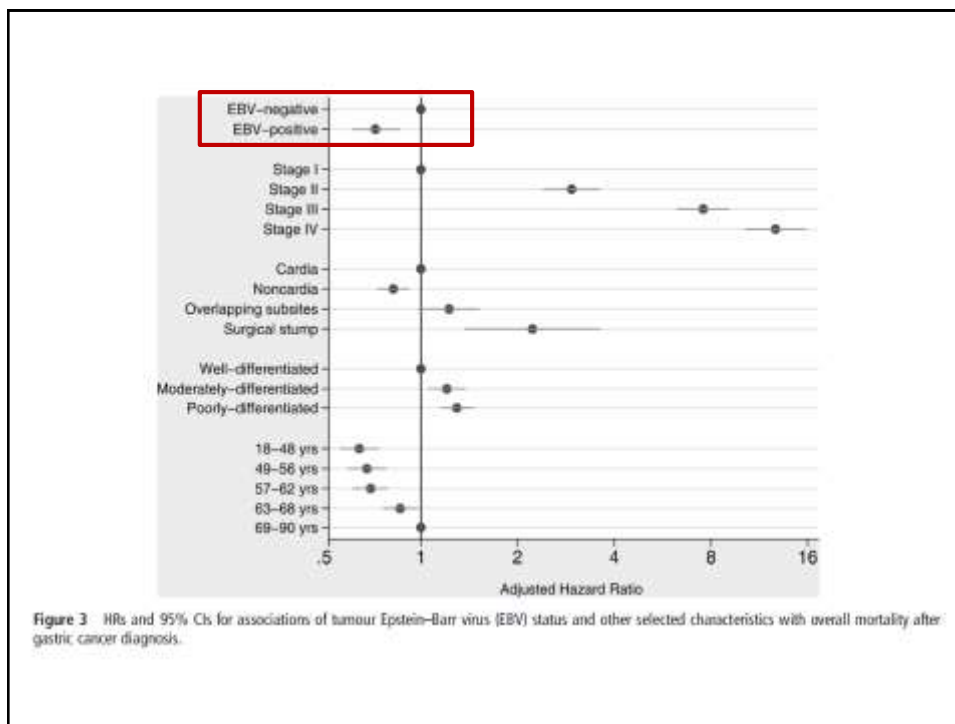
EBV-positive gastric cancer

B lymphocyte (EBV+)

Cell-to-cell contact?

EBV infection
→ extensive methylation





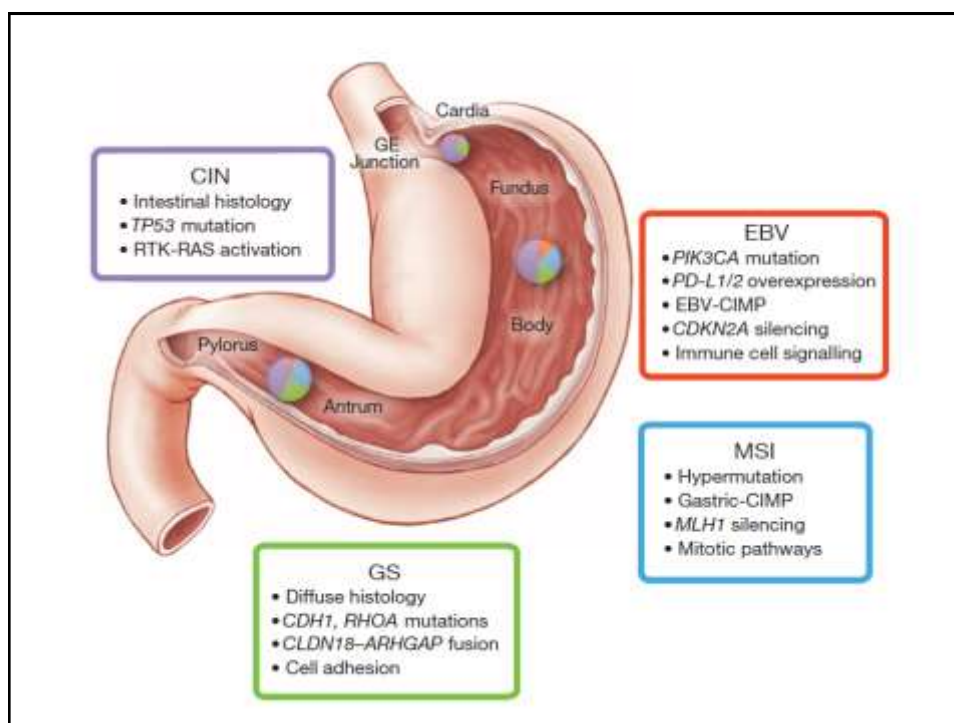
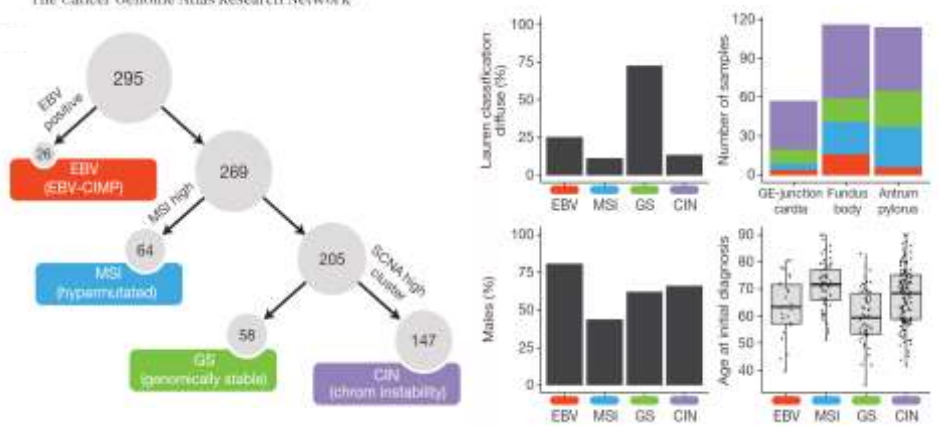
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OPEN

doi:10.1038/nature13480

Comprehensive molecular characterization of gastric adenocarcinoma

The Cancer Genome Atlas Research Network*



Take Home Message



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- Gastric adenocarcinoma with lymphoid stroma is a variant of gastric cancer that is often (but not invariably) associated with EBV infection
- Despite the poor tumour differentiation the prognosis is comparably good (anti-tumour host response)
- The molecular basis of disease is not fully understood
 - EBV: tumour initiation or tumour progression?
 - Helicobacter pylori as co-factor?
 - Relation to stump cancer – why?
 - CIMP and promoter methylation → epigenetic silencing
- Gastric adenocarcinoma with lymphoid stroma not related to EBV infection may be related to Lynch Syndrome



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**Thank you very much for
your attention**

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