



## Abstracts

### 31<sup>st</sup> European Congress of Pathology

#### Oral Free Paper Sessions

Sunday, 8 September 2019, 08:30 - 12:00, Galliéni 5  
OFP-01 | Joint Session: Uro pathology / Nephropathology

##### OFP-01-001

##### The influence of the presence of intraductal carcinoma of the prostate on the grade group system's prognostic performance

T. Suzuki<sup>1</sup>, M. Kato<sup>2</sup>

<sup>1</sup> Department of Surgical Pathology, Aichi Medical University Hospital, Japan, <sup>2</sup> Department of Urology, Nagoya University Graduate School of Medicine, Japan

**Background & Objectives:** Although the presence of intraductal carcinoma of the prostate (IDC-P) influences biochemical failure in radical prostatectomy patients, no data are available regarding the impact of its integration into the classification Grade Group system. Thus, the aim of this study was to enhance the utility of the Grade Group (GG) system by integrating the presence of IDC-P.

**Methods:** This study was a retrospective evaluation of 1019 patients with prostate cancer who underwent radical prostatectomy between 2005 and 2013 without neoadjuvant or adjuvant therapy. Data on age, prostate-specific antigen (PSA) level at diagnosis, pathological T stage (pT), the presence of Gleason pattern 5 (GP5), the presence of IDC-P, and surgical margin status were analysed to predict PSA recurrence after prostatectomy.

**Results:** IDC-P was detected in 157 patients (15.4%). GGs were as follows: GG1 without IDC-P, n=163; GG2 without IDC-P, n=470; GG3 without IDC-P, n=160; GG4 without IDC-P, n=27; GG5 without IDC-P, n=42; any GG with IDC-P, [n=157; GG 2 (n=29); GG3 (n=60); GG4 (n=13); GG5 (n=55)]. Any GG with IDC-P showed a significantly worse prognosis than any other GG without IDC-P ( $p < 0.0001$ ). In a multivariate analysis, integration of the IDC-P into the GGs was significant prognostic predictors ( $P < 0.0001$ ).

**Conclusion:** Integrating the presence of IDC-P into the GG system will result in more accurate predictions of patient outcome.

##### OFP-01-002

##### Distinct genetic alterations and luminal molecular subtype in nested variant of urothelial carcinoma

V. Weyerer<sup>1</sup>, R. Weisser<sup>1</sup>, E.A. Moskalev<sup>1</sup>, F. Haller<sup>1</sup>, R. Stoeckl<sup>1</sup>, M. Eckstein<sup>1</sup>, U. Zinnall<sup>2</sup>, N.T. Gaisa<sup>3</sup>, E. Compèrat<sup>4</sup>, A. Perren<sup>5</sup>, B. Keck<sup>6</sup>, Y. Allory<sup>7</sup>, G. Kristiansen<sup>8</sup>, B. Wullich<sup>6</sup>, A. Agaimy<sup>1</sup>, A. Hartmann<sup>1</sup>, S. Bertz<sup>1</sup>

<sup>1</sup> Institute of Pathology, University Hospital Erlangen, Friedrich-Alexander University Erlangen, Germany, <sup>2</sup> Institute of Medical Systems Biology, Max Delbrück Center for Molecular Medicine in the Helmholtz Association,

Berlin, Germany, <sup>3</sup> Institute of Pathology, RWTH Aachen University, Germany, <sup>4</sup> Hôpital Tenon, HUEP, Sorbonne University, Paris, France, <sup>5</sup> Institute of Pathology, University of Bern, Switzerland, <sup>6</sup> Department of Urology and Paediatric Urology, University Hospital Erlangen, Friedrich-Alexander Universität Erlangen-Nuernberg, Germany, <sup>7</sup> Department of Pathology, Hôpital Foch, Université Versailles-Saint-Quentin-en-Yvelines, Université Paris-Saclay, Suresnes, France; Institut Curie, CNRS, UMR144, Paris, France, <sup>8</sup> Institute of Pathology, University Hospital Bonn, Germany

**Background & Objectives:** Nested variant of urothelial carcinoma (NVUC) is rare and only few small series exist. Molecular characteristics and the classifying marker profile as well as therapeutic targets of this specific variant are mostly unknown. Aim of this study was to characterise NVUC on the molecular level in one of the largest cohorts to date. In addition, we applied an immunohistochemical marker panel in order to define the molecular subtype of this variant.

**Methods:** 60 NVUC cases were collected from different departments. *TERT* promoter mutation analysis was carried out in all samples using SNaPshot analysis. Target sequencing of 48 cancer related genes by Next Generation Sequencing (NGS) analysis was performed in a subset of 26 cases. Immunohistochemical markers CD44, CK5, CK14, EGFR, p63, FOXA1, GATA3, CD24 und CK20 were used to elucidate the molecular subtype.

**Results:** A total of 62.5% of NVUC cases harbored a mutation of the *TERT* promoter. Additionally, *TP53* and *JAK3* were among the most frequently mutated genes identified by NGS analysis. Subtyping revealed that all NVUC express luminal markers such as CD24, FOXA1, GATA3 and CK20.

**Conclusion:** Summarized, NVUC belong to the luminal molecular subtype. Moreover, a subset of NVUC seems to be characterised by mutations of the Wnt- and inflammatory pathway, including *JAK3* mutations, indicating a different biological background compared to conventional urothelial bladder cancer.

##### OFP-01-003

##### A new auto-annotation method and machine learning strategy for detection and annotation of cancer areas in prostate biopsies

L. Björk<sup>1,2</sup>, J. Gustafsson<sup>3</sup>, F. Hikmet Noraddin<sup>3</sup>, K. Eurén<sup>2</sup>, C. Lindskog<sup>3</sup>

<sup>1</sup> Karolinska Institutet, Sweden, <sup>2</sup> Contextvision, Sweden, <sup>3</sup> Uppsala Universitet, Sweden

**Background & Objectives:** Prostate cancer is one of the most diagnosed cancer forms and a leading cause of cancer-related death in males. The examination and Gleason scoring of prostate biopsies is however a major bottleneck in the pathology workflow, and studies have shown that the inter-observer variability in scoring is high. For increasing accuracy and speeding up the decision process, there is a high demand for implementation of an image analysis tool to support pathologists. The aim of the present investigation was to develop a strategy for un-biased, specific

The tumour invaded the mucosa, muscularis propria and serosal fatty tissue. No dysplasia was found in the surrounding tissue. Immunohistochemistry was diffusely positive for Cam5.2, MUC-6, MUC 5AC, MUC 1, DPC4, CEA-P, negative for CK7, CK20, CDX2, MUC2, NKX2, PAX8, PSAP, SALL4, TTF-1, NAPSIN A, HMB45, TTF-3. Secondary involvement was excluded by extensive immunohistochemical panel and PET screening.

**Conclusion:** Extra-ampullary duodenal adenocarcinomas are divided into two major subsets, intestinal type and gastric type, are associated with distinct histopathologic features and clinical behavior. Our case was evaluated as extra-ampullary duodenal adenocarcinoma originating from Brunner glands or gastric heterotopia.

#### E-PS-06-038

##### **CD4+ and CD8+ lymphocytes in the immune microenvironment of gastric cancer: evaluation in Tumour Tissue (TT) and Adjacent Areas of Unchanged Mucosa (AAUM)**

I. Mikhailov<sup>1</sup>, N. Danilova<sup>1</sup>, P. Malkov<sup>1</sup>, N. Oleynikova<sup>1</sup>

<sup>1</sup> Lomonosov Moscow State University, Russia

**Background & Objectives:** The assessment of tumour immune microenvironment in AAUM isn't enough studied. This is an important direction in gastric cancer research because immune cells in AAUM may contribute in epithelial-mesenchymal transition and tumour metastasis. CD4+ and CD8+ lymphocytes are the main component of antitumour immunity which controls all other cellular reactions. It is known that high density of intratumour CD4+ and CD8+ infiltration is associated with better prognosis in gastric cancer patients but it is not well known in AAUM.

**Methods:** 55 cases of gastric cancer (surgical material) were included in our study. Lymphocytes identification was performed by immunohistochemical staining on markers CD4 (clone 4B12) and CD8 (clone C8/144B). Cell counting was performed in three fields of view (magn. x200) separately in TT and AAUM. These results were compared with classic tumour characteristics: depth of invasion (T), number of nodes metastases (N), distant metastases (M), grade (G).

**Results:** CD4+ infiltration in TT (median=37,8 cells) was higher than in AAUM (median=19,5 cells) in samples with N3 tumours (p=0,6148); CD4+ infiltration in AAUM in samples with N3 tumours was significantly higher than in samples with N2 tumours (median=11,33). CD8+ infiltration in TT (median=105,79 cells) was higher than in AAUM (median=72,21 cells) in samples with T4a tumours (p=0,7123); CD8+ infiltration in AAUM (median=74,33 cells) in samples with T4a/T4b tumours was significantly higher than in samples with T1a/T1b tumours (median=48,33).

**Conclusion:** High density of CD4+ and CD8+ infiltration in AAUM in gastric cancer is associated with greater depth of invasion and large number of lymph nodes metastases which is opposite to intratumour infiltration. This indirectly confirms the hypothesis that CD4+ and CD8+ in AAUM may be involved in tissue restructuring that conduct to the tumour progression.

#### E-PS-06-039

##### **Coexistence of intrahepatic bile duct adenoma and colorectal adenocarcinoma**

D. Anastakis<sup>1</sup>, C. Tsompanidou<sup>2</sup>, P. Konstantinidou<sup>1</sup>, M.I. Givannakis<sup>3</sup>, I. Fountos<sup>4</sup>, P. Pavlidis<sup>5</sup>

<sup>1</sup> Department of Autopsy Histopathology, Lab. of Forensic Medicine and Toxicology, Aristotle University of Thessaloniki, Greece, <sup>2</sup> Department of Pathology, General Hospital of Thessaloniki "Agius Dimitrios", Greece, <sup>3</sup> Surgical Department, General Hospital "AHEPA", Thessaloniki Greece, <sup>4</sup> Forensic Service of West Republic of North Macedonia, Kozani, Greece, <sup>5</sup> Lab. of Forensic Medicine, Medical School, Democritus University of Thrace, Greece

**Background & Objectives:** Bile duct adenomas are benign proliferations of intrahepatic bile ducts usually encountered as an incidental

finding. They are usually located on the surface of the liver and are <1 cm in diameter. These rare lesions should be included in the differential diagnosis of hepatic masses in addition to metastatic tumours if the patient has another malignancy.

**Methods:** A 70 year old woman with a diagnosis of colorectal adenocarcinoma was undergoing surgery when a small nodule was discovered on the surface of the left lobe of her liver. Thought to be possible metastatic disease this lesion was excised and sent for pathologic evaluation. The diagnosis of this nodule was benign in frozen sections intraoperatively and colectomy was performed during the same operation.

**Results:** Macroscopically the nodule of the liver was well circumscribed but not encapsulated, gray-white nodule measuring 1 cm in diameter. The microscopic study of the lesion showed an increased number of small, normal appearing bile ducts lined with a single layer of cuboidal cells which were positive to cytokeratin 7, negative to cytokeratin 20 and had a ki67 proliferation index of 1%. The morphology, immunophenotype and ki67 proliferation rate were consistent with a bile duct adenoma. The tumour of the colon was a pTNM stage II adenocarcinoma.

**Conclusion:** Recognition of this unusual co-existence of tumours could help to elaborate the appropriate therapeutic strategy for these patients.

#### E-PS-06-040

##### **A rare case of acute abdomen in a pregnant woman – deciduosis of the appendix**

F. Galante Pereira<sup>1</sup>, A. M. G. Pereira<sup>1</sup>, C. A. Padrão<sup>1</sup>, J. Palla Garcia<sup>1</sup>, R. S. S. Oliveira<sup>1</sup>

<sup>1</sup> Hospital Prof. Doutor Fernando Fonseca, EPE, Portugal

**Background & Objectives:** Ectopic decidua reaction or deciduosis is a physiological phenomenon that results from the effects of progesterone on extrauterine mesenchymal cells during pregnancy. In rare cases, ectopic decidual tissues can develop in the appendix. This case report pretends to raise the awareness of this uncommon finding.

**Methods:** A 30-year-old primigravida in her 17st week of an uncomplicated pregnancy, presented with nausea, right lower abdominal pain, positive Blumberg sign, slightly increased inflammatory markers, and a positive ultrasound for acute appendicitis. Following the diagnosis of appendicitis, the patient was later submitted to an appendicectomy. Hematoxylin-eosin, vimentin, calretinin and AE1/AE3 stain were performed.

**Results:** On specimen handling, there were white plaques and small nodules on the serosa. Histologically, the lesion was composed by haphazardly distributed sub-mesothelial decidualized cells, occasionally forming nodules. The vimentin was positive and the vimentin, calretinin and AE1/AE3 stain were negative.

**Conclusion:** It is important to be aware of less frequent causes of acute abdomen in a pregnant woman. All these diseases can present with similar clinical and imagiologic findings, highlighting the role of the pathologist in the final diagnosis.

#### E-PS-06-041

##### **Evaluation of reproducibility of the diagnosis of gastric intraepithelial neoplasia/dysplasia: possibility of using method as a part of continuous professional education for pathology**

S. Mozgovoi<sup>1</sup>, A. Kononov<sup>1</sup>, A. Shimanskaya<sup>1</sup>, M. Parygina<sup>1</sup>, M. Keruchenko<sup>1</sup>

<sup>1</sup> Omsk State Medical University, Russia

**Background & Objectives:** There is a need to introduce optimally reproducible classification approaches into the practical activity through the system of continuous education. The purpose of this study was to assess the level of consistency of the pathology diagnosis of gastric intraepithelial neoplasia / dysplasia on the consensus model.

**Methods:** A collection of 45 histological slides from the material of gastrobiopsy was compiled. All diagnostic categories of the Modified