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ABSTRACTS

ESP Abstracts 2015

Oral Free Paper Sessions

Sunday, 6 September 2015, 08.30 – 12.00, Meeting Room 6/I
OFP-01 Oral Free Paper Session Digestive Diseases Pathology I

OFP-01-001
Colorectal mucinous adenocarcinoma: Proposal of a novel grading system

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Objective: To explore the inter-observer reproducibility and prognostic significance of a grading system based on the counting of poorly differentiated clusters (PDC) of tumour cells in mucinous adenocarcinoma (MAC) of the colon and rectum.
Method: Grading based on the counting of PDC was assessed in 108 surgical colorectal MACs. PDC represented clusters composed of ≥ 5 cancer cells with no glandular formation in the tumour stroma and at its invasive edge. MACs with <5, 5 to 9, and ≥10 clusters were classified as G1, G2 and G3 by two independent pathologists blinded to the clinico-pathological data. The inter-observer agreement and prognostic significance of PDC grade were compared with those of a grading system based on glandular differentiation.
Results: PDC grade was more reproducible and significantly associated with disease progression ($P = 0.0089$) as well as with death from MAC ($P = 0.0035$), as compared to the grade based on glandular differentiation which was not associated with any of the clinico-pathological variables. Moreover, PDC grade emerged as a significant, independent prognostic factor of recurrence free survival ($P = 0.0198$) and cancer specific survival ($P = 0.0293$) in MAC.
Conclusion: PDC grading is feasible, reproducible and prognostically relevant in MAC, which may support its use in routine practice.

OFP-01-002
Overall Tumour Budding (OTB) for prognostication in colorectal cancer

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Objective: In colorectal cancer (CRC), tumour budding at the invasion front (peritumoral budding, PTB) and within the tumour (intratumoral budding, ITB) has significant prognostic value. Since ITB and PTB are highly correlated, we aimed to assess the clinical relevance of an 'overall' tumour budding (OTB) score.
Method: Pan-cytokeratin stained slides from 156 well-characterized stage I-IV CRC patients were evaluated: OTB was scored as 10 densest out of 20 high-power fields (HPF) of ITB and PTB. OTB scores were correlated with clinicopathological features and survival using a ROC curve based cut-off (10 buds/HPF; high/low-grade OTB) and continuous OTB counts.
Results: High-grade OTB was associated with higher pT, pN, distant metastasis, lymphatic invasion and advanced TNM-stage (all $p < 0.05$). Continuous OTB counts significantly correlated with higher pT ($p \leq 0.01$), pN ($p \leq 0.01$), distant metastasis ($p \leq 0.01$), lymphatic invasion ($p \leq 0.0001$), venous invasion ($p \leq 0.01$), tumour grade ($p \leq 0.01$) and advanced TNM-stage ($p \leq 0.05$). OTB scores independently correlated with poor survival outcome (HR (95 %CI): 1.02, CI: 1.0002–1.04, $p = 0.03$) when adjusted for TNM-stage and adjuvant therapy.
Conclusion: OTB is a strong adverse prognostic parameter, capturing associations with metastasis and survival. It includes the densest regions of tumour budding irrespective of intra- or peritumoral location and simplifies the 10HPF/1HPF scoring system.

OFP-01-003
Dysplastic colonic adenomas are useful samples for Lynch syndrome immunohistochemical screening

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Objective: To assess the usefulness of colonic adenomas as samples for the study of mismatch repair (MMR) protein expression loss when trying to identify individuals with suspected Lynch syndrome (LS).
Method: We studied a series of 61 colonic adenomas from 22 proven mutation carriers (8 females and 14 males) belonging to 16 LS families. Germline mutations were present in MLH1 in 6 cases, MSH2 in 8, MSH6 in 1, and EPCAM in 1. Formalin-fixed, paraffin-embedded tissue sections were used. MMR protein expression was assessed with the aid of anti-hMLH1, anti-hMSH2, and anti-hMSH6 mouse monoclonal antibodies.
Results: Twenty-seven conventional adenomas (CAs), 22 sessile serrated adenomas (SSAs), 4 traditional serrated adenomas (TSAs), and eight hyperplastic polyps (HPs) measuring 0.1–2.2 cm were studied. High-grade dysplasia (HGD) was observed in 33 cases. Loss of MMR protein expression was identified in 34 cases and, in agreement with underlying germline mutations, it involved MLH1 in 9 instances, MSH2 in 24, and MSH6 in 1. Of these 34 informative polyps, 25 (74 %) showed HGD ($p = 0.001$).
Conclusion: Colonic adenomas are useful samples for the assessment of MMR protein expression when LS is suspected. Results are particularly rewarding when colonic adenomas exhibit high-grade dysplasia.

OFP-01-004
P38 expression in colorectal adenomas: Relationship to morphological features and stem cell protein Cd133

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Objective: The P38 protein is known to be expressed in colorectal adenomas. Colon tumorigenesis of adenoma type is promoted in mouse