



# 15<sup>th</sup> European Pathology Congress &

14<sup>th</sup> International Conference on

# Leukemia and Hematologic Oncology

June 20-21, 2018 Paris, France

# Scientific Tracks & Abstracts

## DAY 1

# 15<sup>th</sup> EUROPEAN PATHOLOGY CONGRESS &

## 14<sup>th</sup> International Conference on LEUKEMIA AND HEMATOLOGIC ONCOLOGY

June 20-21, 2018 | Paris, France

### Clinicopathological evaluation of abnormal uterine bleeding (AUB) and its correlation with biochemical hormone profile in perimenopausal women

**Malti Kumari Maurya**

King George's Medical University (KGMU), India

**Introduction:** Perimenopausal women faces menstrual problems inform of cycle irregularity in form of variation in both length and heaviness of bleeding episodes. Follicular development during this phase is erratic, leading to estrogen level variability. Thus, detailed characterization of sex hormones dynamics during the perimenopause is important for understanding its potential implications for reproductive cancers and other health outcomes.

**Objective:** To evaluate the clinical features and histopathological findings in abnormal uterine bleeding and correlate with hormone profile in perimenopausal women.

**Materials & Methods:** A total of 156 endometrial curettage samples of perimenopausal women age group (40-50 years) which were undergone D&C for AUB were collected and processed and classified according WHO criteria. 2-3 ml serum was collected between day two to day fourth of period and LH, FSH, Estradiol and progesterone hormone analysis was done by chemiluminescent microparticle immunoassay.

**Results:** The predominant pattern of endometrium among benign category was proliferative 46 (30.6%) and disordered proliferative phase endometrium 40 (26.6%) followed by secretory 12 (8%) and mixed endometrium 11 (7.3%). In premalignant group, 33 (22%) had hyperplasia without atypia and 2 (1.3%) had atypical hyperplasia. Patients with benign endometrial lesions (102) and hyperplasia (33) presented with heavy menstrual bleed 91% and 94% respectively while all three patients of malignant lesions complaint intermenstrual bleeding (100%). ( $p=0.001$ ). No statistically significant correlation was found between hormone levels and endometrial histological pattern.

**Conclusion:** In perimenopausal women, intermenstrual bleeding may represent an alarming symptom of endometrial malignancy. Histopathological pattern of endometrium and clinicopathological factors can predict further management and outcome.

### Biography

Malti Kumari Maurya has completed her MD Pathology from King George's Medical University (KGMU), Lucknow, India in 2008. Then joined as a Lecturer in 2009 in the same Department and promoted to Associate Professor in 2015. She is actively participating in both teaching undergraduate and postgraduate students along with research work and attended national international CME. Her field of interest is gynecologic pathology, onco path, oral and gall bladder tumor. She has published more than 20 papers in reputed journals and serving as reviewer in two to four journals.

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# 15<sup>th</sup> EUROPEAN PATHOLOGY CONGRESS &

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### Hemostatic profile in patients of myeloproliferative neoplasms- A 5 year experience from a tertiary care centre in North India

Rashmi Kushwaha, Yatendra, Geeta Yadav, Mili Jain, S P Verma, U S Singh, A Kumar and Tripathi A K  
King George's Medical University, India

**Background:** Patients of myeloproliferative neoplasm (MPN) commonly present with abnormalities in coagulation tests that are consistent with hypercoagulable state. Some individuals with MPN exhibit a pattern of exclusive bleeding or thrombotic events; many others have both bleeding and thrombosis.

**Objectives:** To assess the hemostatic defects and platelet functions in patients of MPN.

**Methods:** Five year prospective study done at a tertiary care center in North India. All recently diagnosed cases of MPN along with 50 age and sex matched controls were included. Patients on antiplatelet drugs, anti myeloproliferative treatment, vitamin K agonists or antagonists, OCP's, Platelet count <1, 00, 000/ $\mu$ l, high grade fever, liver disease, pregnancy were excluded. All the patients underwent screening investigations like CBC, peripheral smear evaluation, bleeding time, prothrombin time, activated partial thromboplastin time, Protein C and S measurement, aggregation with ADP 5 $\mu$ M (CHRONOLOG 700).

**Result:** Fifty cases were included. There was an occult prothrombotic state, suggested by significantly ( $p < 0.001$ ) reduced levels of Protein C, Protein S. But no patient presented with frank thrombosis. Eight out of 50 patients had hemorrhagic manifestations ranging from subdural hematoma to pin point petechial hemorrhages. Patients of CML-CP, ET, PV, PMF, MPN-NOS showed significantly reduced maximal aggregation with 5  $\mu$ M ADP ( $p < 0.001$ ). MPV also showed a statistically significant increase in these patients.

**Conclusion:** Thrombohemorrhagic complications significantly affect the morbidity and mortality of MPN patients. Timely diagnosis of hemostatic abnormalities can decrease the morbidity in these patients.

#### Biography

Rashmi Kushwaha has completed her MD Pathology from Rajiv Gandhi University of Health Sciences, Karnataka, India. At present, she is working as Additional Professor, Lymphoma-Leukemia Lab, Department of Pathology, King George's Medical University, Lucknow, India. She has been working in the above mentioned lab since 10 years. She has 28 scientific paper publications in indexed journals and two research projects. She has delivered nine guest lectures in various conferences. She is trained in flow cytometric immunophenotyping, platelet aggregation studies and coagulation workup.

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#### Notes:

# 15<sup>th</sup> EUROPEAN PATHOLOGY CONGRESS &

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### Histopathological evaluation of 103 patients with rectal carcinoma

**Nuri Emrah Goret**

Canakkale State Hospital, Turkey

**Objective:** Colorectal carcinomas are the third most common carcinomas in men and the second most common carcinomas in women worldwide. Pathological examination of rectum specimens requires special attention for correctly evaluating many prognostically important factors. In this study, we aimed to present pathological results are 103 lower anterior resection (LAR) and abdominoperineal resection (APR) specimens that we retrospectively evaluated over a six years of period.

**Patients & Methods:** One hundred three LAR and APR specimens were included in this study. Patients were evaluated in the Istanbul Ekin Private Pathology Laboratory between January 2010 and January 2016.

**Results:** Of the 103 specimens, 14 (13.5%) were APR and 89 (86.4%) were LAR specimens. Fifty-six patients (54.4%) were males and 47 patients (45.6%) were females. The mean age of the patients was 61.1 years. Twenty-three patients (22.3%) had undergone neoadjuvant therapy. All surgical margins were negative in 100 specimens (97.1%), whereas a tumor was present in the distal surgical margins in three specimens (2.9%). There was no lymph node metastasis in 59 patients (57.3%), whereas there was lymph node metastasis in 44 patients (42.7%). Four (3.9%), 25 (24.3%), 58 (56.3%), 12 (11.6%) patients had stage T1, T2, T3, and T4 tumors, respectively, whereas 4 (3.9%) who had undergone neoadjuvant therapy had stage yT0 tumors. Eighty-six (83.6%), 7 (6.8%), 4 (3.9%), 1 (0.9%), 1 (0.9%), and 4 (3.9%) patients had adenocarcinoma, mucinous adenocarcinoma, intramucosal adenocarcinoma in the setting of a high-grade tubulovillous adenoma, synchronous colon/prostate adenocarcinoma, malignant melanoma, and adenocarcinoma diagnosed by the examination of colonoscopic biopsy specimens that showed complete regression with neoadjuvant therapy, respectively.

**Conclusion:** When evaluating specimens from patients with colorectal carcinoma, pathological evaluation, which is one of the most fundamental pillars, must be performed carefully and meticulously. Each pathological parameter should be evaluated carefully, and clinicians and pathologists should evaluate these cases together.

### Biography

Nuri Emrah Goret graduated from Medical School in 2006 and completed his Residency Training in General Surgery (2016). He is currently working at Canakkale State Hospital as a Staff Surgeon since 2016.

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## 14<sup>th</sup> International Conference on LEUKEMIA AND HEMATOLOGIC ONCOLOGY

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### Immunohistochemical surrogate for molecular subtype of breast carcinoma and its correlation with cyclin D1 expression: An Indian scenario

Gireesha Rawal, Chintamani, A K Mandal and Indrani Dhawan  
Vardhman Mahavir Medical College and Safdarjung Hospital, India

Various prognostic parameters have been described and validated for breast cancer, but the search for newer prognostic factors continues since existing parameters do not provide sufficient information for accurate risk assessment and tailor-made treatment planning. Thus, in the St. Gallen International Expert Consensus on primary therapy of early breast cancer, 2011, breast carcinoma was classified on molecular basis. Further this correlated well with immunohistochemical expression of the tumours and was called surrogate molecular classification. Studies on Cyclin D1 have shown inconsistent and conflicting results with regards to its role in prognosis. This study was aimed at classifying breast carcinoma using surrogate molecular classification into immunophenotypes, studying the immunohistochemical expression of Cyclin D1, and correlating Cyclin D1 as well as immunophenotypes with various parameters. Fifty cases of breast carcinoma were studied and their pTNM staging and Bloom Richardson (BR) grading done. Immunohistochemistry for Cyclin D1, ER, PR, Her2neu and Ki-67 was performed, and they were classified into immunophenotypes. Majority of the cases (40%) were Luminal A subtype, and least (16%) were triple negative. Cyclin D1 positivity was seen in 54% cases. Cyclin D1 showed statistically significant decreasing positivity with increasing grade as well as with increasing stage. On correlating immunophenotype with Cyclin D1, 75% Luminal A, 75% Luminal B, 20% Her2neu enriched, and 12.5% triple negative cases were positive for Cyclin D1. This decreasing trend was statistically significant. This is one of the initial studies from India analyzing immunophenotypes and correlating them with Cyclin D1 expression, in addition to other parameters. The significant association of Cyclin D1 with low stage, low grade and Luminal immunophenotypes may indicate that Cyclin D1 is a good predictive and prognostic factor that closely interacts with hormone signaling pathway. This may aid in investigating the response and clinical outcomes of treatment targeting Cyclin D1.

#### Biography

Gireesha Rawal has completed her Bachelor of Medicine and Bachelor of Surgery (MBBS) degree from Vardhman Mahavir Medical College and Safdarjung Hospital, New Delhi, and she is currently pursuing Post-graduation in Pathology from Vardhman Mahavir Medical College and Safdarjung Hospital, New Delhi. Her areas of interest include breast pathology, immunopathology and female genital tract pathology. She has published many case reports and papers in reputed journals.

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#### Notes:

# 15<sup>th</sup> EUROPEAN PATHOLOGY CONGRESS &

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### GATA3 expression in primary cutaneous mucinous carcinoma

Akanksha Gupta<sup>1</sup>, Michael Murphy<sup>2</sup>, Richard Cartun<sup>1</sup> and Zende Elaba<sup>3</sup><sup>1</sup>Hartford Hospital, USA<sup>2</sup>University of Connecticut, USA<sup>3</sup>University of Massachusetts, USA

**Introduction:** Primary cutaneous mucinous carcinoma (PCMC) is a rare adnexal tumor of sweat gland origin with an indolent course. The primary challenge in diagnosis is distinguishing PCMC from metastatic mucinous breast carcinoma (MMBC)-an important distinction because of the poorer prognosis with metastatic disease, requiring aggressive management. GATA3 binding protein is a transcription factor known to be a sensitive marker for breast and urothelial carcinomas. Most primary and metastatic breast carcinomas express GATA3, making it useful in evaluating metastatic disease. GATA3 expression has also been demonstrated in various epithelial skin tumors but it has not been specifically studied in a cohort of PCMC.

**Case Series:** We evaluated the potential of GATA3 as a distinguishing marker between PCMC and MMBC by applying it in four consecutive cases of PCMC diagnosed at our institution. All patients were females, making mammary metastasis a relevant diagnostic consideration. All cases were CK7 (+)/CK20 (-), CDX2 (-) and expressed mammaglobin, ER and PR. Based on morphology and immunophenotype alone, the cases were practically indistinguishable from MMBC, except that they showed p63 (+) myoepithelial cells, suggestive of a primary cutaneous process. For each case, the diagnosis of PCMC was eventually made after possible extracutaneous primaries had been excluded by extensive systemic workup.

**Result:** All PCMC cases showed strong nuclear GATA3 expression.

**Conclusion:** GATA3 immunohistochemistry is not useful in contrasting PCMC from MMBC. In differentiating these histologic mimics, additional markers and thorough systemic workup are necessary to establish primary cutaneous derivation.

### Biography

Akanksha Gupta has completed her MBBS, and currently is a MD third year Pathology Resident at Hartford Hospital, CT, USA. She did a Pathology Residency in India and passed it with a Gold Medal and moved to US in 2013. While doing her second year Nephropathology fellowship in University of North Carolina at Chapel Hill, NC, USA, she has published five abstract/paper publications, 12 poster presentations, seven oral presentations and one online publication. She is very adept at oral presentations.

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# 15<sup>th</sup> EUROPEAN PATHOLOGY CONGRESS &

## 14<sup>th</sup> International Conference on LEUKEMIA AND HEMATOLOGIC ONCOLOGY

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### The potential importance of a vitamin B<sub>12</sub> assay as a possible early marker in the working diagnosis of malignancy and blood disorders

**Abdou Deyab**

Al Hayat International Hospital, Oman

Hypercobalaminemia (high serum vitamin B<sub>12</sub> levels) is a frequent and underestimated anomaly. The most obvious cause of an elevated vitamin B<sub>12</sub> level is taking too much of the vitamin in the form of supplements. On the other hand, the etiological profile of high serum cobalamin predominantly encompasses severe disease entities for which early diagnosis is critical for prognosis. These entities are essentially comprised of solid neoplasms, hematological malignancies and liver and kidney disease. Vitamin B<sub>12</sub> is generally not considered toxic in high levels, but it's important to determine if the elevation is due to excess vitamin supplements since other causes of a high vitamin B<sub>12</sub> level are usually serious. This review reflects the potential importance of the vitamin B<sub>12</sub> assay as an early diagnostic marker of these diseases.

#### Biography

Abdou Deyab is belongs to Egypt and comes with over 12 years of experience in the practice of Pediatrics Egypt. He has worked in various hospitals in Egypt where he held the position of Specialist Pediatrician.

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### The global incidence and prevalence of multiple myeloma over the next 10 years (2017-2027)

Atul Sharma and Nishant Kumar  
Decision Resources Group, India

**Objective:** The objective of this study was to estimate the global incidence and prevalence of multiple myeloma by region over the next 10 years using a multi-factorial forecast model.

**Methods:** Using a critically appraised set of country-specific cancer registries, multiple myeloma incidences were estimated for 45 countries, representing approximately 90% of the world population in 2017. Observed correlations between GDP, multiple myeloma risk, and survival were used to trend multiple myeloma incidence over the next 10 years. Multiple Myeloma survival was trended using an attenuated function of historical trends and factoring in the anticipated uptake of newer, more efficacious treatment regimens in the future. Prevalence was estimated as a cumulative incidence over preceding 20 years with adjustments for disease-specific and competing-cause mortality for each year. To estimate incident and prevalent multiple myeloma globally, aggregate estimates for each region were divided by the proportion of countries in that region for which direct estimates were made using the methods described above. The incident cases were also reported by the symptomatic status, as treatment guidelines are based this, thus are important to initiate treatment for a patient.

**Results:** The incidence of multiple myeloma in Africa, Latin America, lower-income Asia Pacific countries, high-income Asia Pacific countries, Europe, and North America is 1, 2, 2, 5, 7 and 8 cases per 100,000/year. The prevalence of multiple myeloma in Africa, Latin America, lower-income Asia Pacific countries, high-income Asia Pacific countries, Europe, and North America is 4, 8, 7, 19, 25, and 32 cases per 100,000. Lower-Income Asia Pacific is expected to see the highest growth in prevalent cases over the next ten years: 71% by 2027.

**Conclusion:** The incidence and prevalence of multiple myeloma is expected to increase globally. Improvements in the survival of multiple myeloma patients and ageing of population of will result in 325 thousand additional cases surviving by 2027 worldwide.

#### Biography

Atul Sharma is an Associate Epidemiologist in the Epidemiology team at Decision Resources Group with an expertise in Cancer Epidemiology. He has a Bachelor's degree in Dental Surgery from Himachal Pradesh University, India and a Master's degree in Public Health from PGIMER, India. He specializes in developing epidemiological forecasts for the multiple indications within the DRG syndicated portfolio. His field of interest lies in the oncology.

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# 15<sup>th</sup> European Pathology Congress &

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## Workshop

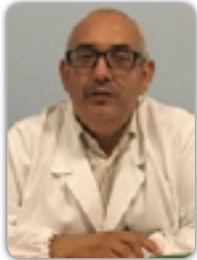
### DAY 1

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# 15<sup>th</sup> EUROPEAN PATHOLOGY CONGRESS &

## 14<sup>th</sup> International Conference on LEUKEMIA AND HEMATOLOGIC ONCOLOGY

June 20-21, 2018 | Paris, France



### *Roberto Castelli*

University of Milan, Italy  
Luigi Sacco Hospital Milan, Italy

#### **The impact of anaemia, transfusion dependency, comorbidities and polypharmacy in elderly patients with low-risk myelodysplastic syndromes**

**Introduction:** Myelodysplastic syndromes (MDS) are heterogeneous clonal disorders ranging from indolent conditions with a near-normal life expectancy to forms approaching acute myeloid leukaemia. Comorbid conditions have rarely been systematically studied among patients with MDS. Older age per se has a negative impact on survival of MDS patients, in particular of those with lower risk. However, age indirectly affects also the survival of higher-risk patients by limiting their eligibility to intensive treatments. In addition, ageing is associated with an increasingly high risk of developing comorbidity, and a high prevalence of comorbid diseases has indeed been reported in MDS patients. The impact of multi-morbidities/comorbidities and polypharmacy in patients with low-risk MDS patients is a poorly explored topic. We focused on medications, multi-morbidities and comorbidities of 155 low-risk MDS patients followed in the hematological outpatient's clinics or in medical/oncology wards of our University Hospital. One or more comorbidities were present at diagnosis in 24 younger patients with MDS syndromes (31%), whereas 56 older patients with MDS (75%) presented one or more comorbidities ( $P < 0.001$ ). The most frequent comorbidity was cardiac comorbidity 18% in younger patients and 25% in older patients. With no statistical significance between older and younger patients, congestive heart failure was the most frequent observed disease. Our study has shown a statistical correlation between transfusion dependency and polypathology ( $P = 0.0014$ ). These data were also confirmed in a sub analysis of the younger group of patients. Our study has shown that comorbidity is very common among patients with MDS, potentially affecting the clinical course and outcome of MDS patients.

#### **Biography**

Roberto Castelli has obtained his degree in Medicine at University of Milan, and then specialization in Internal Medicine and Hematology at University of Milan. In addition, he obtained his PhD in Clinical Methodology at University of Milan. He worked as Haematologist at Ospedale Maggiore di Milano University of Milan until 2015 at University Hospital Ospedale Luigi Sacco. He is involved in malignant and non-malignant hematological disease focusing on myelodysplastic syndromes, acute and chronic leukemia's and myeloproliferative neoplasms. He is responsible of leukemia section at Ospedale Luigi Sacco University of Milan.

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#### **Notes:**



# 15<sup>th</sup> European Pathology Congress & 14<sup>th</sup> International Conference on Leukemia and Hematologic Oncology

June 20-21, 2018 Paris, France

## Workshop

### DAY 2

JOINT EVENT

# 15<sup>th</sup> EUROPEAN PATHOLOGY CONGRESS &

## 14<sup>th</sup> International Conference on LEUKEMIA AND HEMATOLOGIC ONCOLOGY

June 20-21, 2018 | Paris, France



### *Zahra Maleki*

*The Johns Hopkins Hospital, USA*

#### **Diagnostic challenges in head and neck cytopathology**

**Educational Session Description:** Fine needle aspiration has gained significant popularity in the evaluation of head and neck lesions due to its minimally invasive nature, not leaving a scar, and the possibility of repeating the procedure if it is needed. There is also an increased demand by clinicians and surgeons to receive a definitive diagnosis in order to avoid any unnecessary aggressive procedures. Moreover, additional diagnostic material is required for ancillary testing particularly whenever precision medicine is applicable. In general, head and neck mass lesions are relatively uncommon and may present at any age. Although metastases are the most common mass lesions in head and neck, a wide variety of both benign and malignant neoplasms including rare conditions, may arise primarily in this anatomic site. This video microscopy tutorial utilizes glass slides to review cytomorphologic features of challenging head and neck mass lesions along with differential diagnosis. The ancillary tests will be discussed when it is applicable. In addition, it will review several examples of HPV-related head and neck squamous cell carcinomas.

**Learning Needs/Professional Practice Gaps Addressed:** How will the proposed educational session address an identified professional practice gap? (Maximum 1250 characters) Head and neck mass lesions are relatively uncommon. They can present at any age as a painless or painful mass. The mass can be solid or cystic with a rapid or slow growth pattern. The underlying cause of the mass is widely variable including congenital, inflammatory/infectious, and neoplasms. Recognition of these different entities and a definitive diagnosis is necessary for patient care. Furthermore, the clinicians may request additional testing for patient care, for instance, HPV testing in head and neck squamous cell carcinomas. Rarity of these lesions is the main reason for not gaining much experience, particularly in pathology practices with relatively low volume. This video microscopy tutorial will cover challenging and less common cases in head and neck cytopathology. The cytomorphology of these cases will be reviewed and the ancillary tests will be discussed when it is necessary for a definitive diagnosis. What evidence demonstrates a need for this educational session among pathologists and/or laboratory professionals? (Maximum 1250 characters) We at Johns Hopkins Medicine, a large academic institution, receive many outside consultation cases of head and neck cytology cases which is evidence of a need for this educational session. There are many challenging consult cases due to their unique cytomorphology that require even consultation within the Division of Cytopathology. Head and neck cytology constitutes a small percentage of cytology cases even in a large academic institution, such as where I practice, with a very active department of otolaryngology. Reviewing the literature, there are a large number of head and neck cytology case reports but there are not many original articles of large series. There are a considerable number of occult malignancies initially presented as a metastatic lesion in head and neck which requires the pathologist's expertise to work up these cases. All of the above facts are convincing evidence of a need for this educational session.



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## 14<sup>th</sup> International Conference on LEUKEMIA AND HEMATOLOGIC ONCOLOGY

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### Malignant mesothelioma and differential diagnosis with reactive mesothelial proliferation

**Mark Podberezin**

University of Saskatchewan, Canada

Malignant mesothelioma (MM) is one of most lethal forms of cancer, causing about 3000 deaths per year in USA and 5000- in Europe. Asbestos exposure is one of most important causative factor, and latency period after exposure can be as long as 40 years. Being tumor of serous membranes, it most commonly involves pleura, with minority of cases manifesting as peritoneal mesothelioma. Despite recent advances in multimodality treatment, prognosis of MM patients is dismal, and average survival is less than a year after diagnosis. Most common clinical presentation is unilateral recurring pleural hemorrhagic effusion. However, depending on histologic variant, some patients do not have pleural effusion and present with shortness of breath and increased pleural thickness. The latter is particularly true in sarcomatoid and desmoplastic variants of MM. Definitive diagnosis of MM can be done on pleural biopsy based on combination of assessment of both morphologic and immunohistochemical findings, with the recent inclusion of molecular cytogenetic findings in the diagnostic armamentarium. Most crucial and difficult task is to separate malignant process from its benign mimics. And, despite all recent advances in the diagnosis of MM, differential diagnosis between MM and reactive mesothelial proliferation remains major challenge. Importance of careful and thorough morphologic evaluation of growth pattern cannot be overestimated. Presence of invasion is unequivocal criterion of malignancy while absence of definitive invasion seen on the biopsy still cannot completely rule out MM. Therefore, other features, such as cellularity with cell distribution and growth pattern, necrosis, and cytologic atypia have to be evaluated. Recent addition of BAP-1 immunostaining, as well as molecular studies, has proven to be very helpful in differential diagnosis between MM and reactive mesothelial proliferation. Discussion of the above diagnostic aspects is main focus of current presentation.

#### Biography

Mark Podberezin has completed his Post-doctoral Research Fellowship during the year 2001 from Children Hospital Los Angeles and University of Southern California and Residency in Anatomic and Clinical Pathology at University of Illinois, Chicago. He has done the Fellowship in Hematopathology during the year 2013 from Texas Methodist Hospital. He is the Clinical Assistant Professor at University of Saskatchewan, Canada. He has published more than 12 papers in reputed journals.

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# 15<sup>th</sup> EUROPEAN PATHOLOGY CONGRESS &

## 14<sup>th</sup> International Conference on LEUKEMIA AND HEMATOLOGIC ONCOLOGY

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### Correlation of histomorphology and immunohistochemistry in histiocytic and dendritic cell neoplasms: A retrospective observational study of three years in a referral laboratory in India

Shivani Sharma, Sambit Mohanty, Kunal Sharma, Aditi Dewan, Ekta Jain, Bhawna and Lata Kini  
CORE Diagnostics, India

Histiocytic and dendritic cell neoplasms (HDCN) are rare disorders of lymph node and soft tissue. These neoplasms include Histiocytic sarcoma (HS), langerhans cell histiocytosis (LCH), follicular dendritic cell sarcoma (FDCS), interdigitating cell sarcoma (IDCS), indeterminate cell sarcoma (INDCS), and fibroblastic reticular cell tumor (FRCT). These neoplasms are often misdiagnosed as carcinoma, neuroendocrine tumors and other Non-Hodgkin lymphomas. We sought to establish a correlation between the histomorphologic features and immunohistochemical results of these neoplasms and analyse the diagnostic pitfalls. This is a retrospective observational study including 17 cases of HDCN collected over a period of three years. Formalin fixed paraffin embedded tissue underwent routine haematoxylin and eosin (H and E) staining and microscopic examination. An extensive immunohistochemical panel was performed and included markers necessary for the diagnosis (CD68, NSE, CD1a, CD4, CD21, CD23, cyclinD1, CD45, Ki67, vimentin, S100, and PanCK) and markers important to exclude other differentials. Among 17 cases, LCH (8/17; 47%) was the most common subtype, and HS (7/17; 41.1%) was the second most common case, each of FDCS (1/17; 5.8%) and FRCT (1/17; 5.8%). The mean age of the patients was 36.6 years with male to female ratio of 2.4:1. LCH was seen in head and neck region predominantly including occipital bone, scalp, subgaleal periosteum, external auditory canal, supraclavicular lymph node, and cervical spine. The site of HS varied from colon (2/7), lymph node (1/7), lower limb (2/7) and spine (2/7). FDCS was diagnosed in a lymph node and FRCT presented as an abdominal mass. For LCH, on morphology, grooved nuclei with longitudinal cleft in the Langerhans cells seen in a background eosinophilic infiltrate were the most striking morphologic feature (8/8; 100%). CD1a, S100 and CD68 co-positivity was seen in all eight cases of LCH. Histiocytic sarcoma showed a consistent positivity for CD68 and CD4 in all the cases. FDCS showed characteristic histomorphologic features of tumor cells arranged in whorls, fascicles and storiform pattern with positivity of CD21 and CD23. The tumor cells in FRCT were arranged in a storiform pattern and showed positivity for vimentin and SMA. HDCNs are a rare group of hematologic disorders that have variable clinical presentations, rare sites and different prognoses. A careful morphologic evaluation and an extensive immunohistochemical work up are mandatory for their diagnoses. As a future standpoint, more cases need to be pooled, studied and evaluated for genetic studies to attain optimal treatment protocols for this rare group of neoplasms.

#### Biography

Shivani Sharma has completed her graduation from Maulana Azad Medical College, New Delhi in 2009, and completed her Diploma in Clinical Pathology from Indira Gandhi Medical College, Shimla, Himachal Pradesh in 2012. She studied Diploma in National Board from Medanta-The Medicity, Gurgaon, Haryana (2013-2015), also, cleared the first part of FRCPATH, Royal College of London in March 2015. She has been awarded the Shiv Ram Vidyawanti Kakkar Memorial Award, Gold Medal in ENT in 2007, and Gold Medal for the Best Student in Diploma in Clinical Pathology, in 2012 by Himachal Pradesh University. She has published more than 14 papers in various reputed journals.

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#### Notes:

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### Review and local experience for evaluating pancreatic tissue specimens

**Ceren Canbey Goret**

Health Sciences University, Turkey

**Background:** Pancreaticoduodenectomy (Whipple) and distal pancreatectomy (DP) operations are the preferred methods for indications ranging from benign inflammatory conditions to malignant neoplasia. Pathological examination of both Whipple and distal pancreatectomy materials requires special attention to correctly evaluate many important prognostic factors. In this study, we aimed to present the pathology results of 41 Whipple and distal pancreatectomy materials evaluated retrospectively over six years of period.

**Methods:** A total of 41 Whipple procedure and distal pancreatectomy materials, both benign and malignant, which were evaluated in the Istanbul Ekin Private Pathology Laboratory between January 2010 and January 2016 were included in the study.

**Results:** Out of the 41 cases, 10 (24.4%) showed DP and 31 (75.6%) showed Whipple; 22 (53.6%) of the cases were male and 19 (46.4%) were female, and the mean age was 59.8 years. Six (14.6%) cases were benign and 35 (85.4%) were malignant. Of the 35 malignant cases, 15 were female and 20 were male; the mean age was 60.44 years. In terms of localization, 6 (17.1%) of the tumors were localized to the ampulla, 7 (20%) to the pancreas distal, 2 (5.7%) to the duodenum, and 20 (57.2%) to the pancreas head.

**Conclusion:** In pancreatic carcinoma cases that are treated with either Whipple or DP, macroscopy should be assessed pathologically, and the entire piece should be diligently sampled. By doing so, parameters fundamentally affecting the survey, such as tumor type and lymph node status will be evaluated more accurately. In addition, rate of resection in benign lesions can be slightly reduced by performing FNAB with ERCP or EUS to the masses detected by imaging in the preoperative period.

#### Biography

Ceren Canbey Goret has graduated from Medical School in 2007 and completed her residency training in Clinical Pathology in 2013. She worked for two years as a Staff Pathologist at Istanbul Haydarpasa Numune Training/Research Hospital, and for two years as an Assistant Professor Pathologist Canakkale Onsekiz Mart University Hospital. Currently, she is working at Health Science University, Sancaktepe Training/Research Hospital as a Staff Pathologist since 2017.

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#### Notes:



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### Mean platelet volume and mean platelet volume/platelet count ratio as markers for hepatocellular carcinoma in patients with chronic hepatitis C virus related cirrhosis

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Hepatocellular carcinoma (HCC) is the most common primary malignant tumor of the liver. The lack of efficient and precise HCC biomarkers prevents early detection resulting in a poor prognosis. Recently, mean platelet volume (MPV) and MPV/platelet count (PC) ratio have been proposed as potential markers of HCC. This study was carried out to verify MPV and MPV/PC ratio in diagnosis of HCC in Egyptian patients with chronic hepatitis C related liver cirrhosis. One hundred and fifty chronic hepatitis C (CHC) patients with chronic hepatitis, cirrhosis or HCC were enrolled in the study. The levels of alpha-feto protein (AFP), MPV and MPV/PC ratio were determined compared to 50 healthy persons. MPV and MPV/CP ratios were higher in patients with cirrhosis and those with HCC. The cut off level for MPV for detection of HCC was 10.1 fl, with sensitivity of 70% and specificity of 57%. At a cut off level of 0.82, the sensitivity of MPV/CP ratio was 79.6% and specificity was 72.7%. AFP showed sensitivity 80% and specificity 82% at cut-off level of 16.9 ng/dl. MPV and MPV/PC ratios are less sensitive and specific than AFP as markers for HCC and they may be used only in association with other markers to improve sensitivity of tumor detection.

#### Biography

Gamal Y Abo-Raia is an Assistant Professor of Clinical Pathology, Dept. of Clinical & Chemical Pathology, at National Liver Institute, Menoufia University. He is Director of Clinical Chemistry Unit at National Liver Institute lab. He has published more than 20 papers in reputed journals. He is a supervisor of more than 20 Master's & Doctorate theses.

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