VIRCHOWS ARCHIV

European Journal of Pathology

Volume 471 – Supplement 1 - September 201







Virchows Archiv

The European Journal of Pathology

OFFICIAL JOURNAL OF THE EUROPEAN SOCIETY OF PATHOLOGY

Editor-in-Chief

Daniela Massi, Florence, Italy

Senior Editorial Consultant

Fred T. Bosman, Lausanne, Switzerland

Associate Editors

Volkan Adsay, Atlanta, GA, USA Cord Langner, Graz, Austria Sigurd F. Lax, Graz, Austria George Netto, Birmingham, AL, USA Leticia Quintanilla-Martinez, Tübingen, Germany Ales Ryska, Hradec Králové, Czech Republic

Editorial Consultants Ex Officio ESP

Pierre Bedossa, Paris, France Ilmo Leivo, Helsinki, Finland Marco Santucci, Florence, Italy

Past Editors

Maria de Fátima Carneiro, Porto, Portugal Manfred Dietel, Berlin, Germany Vincenzo Eusebi, Bologna, Italy Heinz Höfler, Munich, Germany Günter Klöppel, Munich, Germany Hans Kreipe, Hannover, Germany Han van Krieken, Nijmegen, The Netherlands Sunil Lakhani, Brisbane, Australia Manuel Sobrinho-Simões, Porto, Portugal

Editorial Board

Abbas Agaimy, Erlangen, Germany Kerstin Amann, Erlangen, Germany Thomas Brenn, Edinburgh, United Kingdom Reinhard Büttner, Bonn, Germany Beatrix Cochand-Priollet, Paris, France Jane Dahlstrom, Adelaide, Australia Ben Davidson, Oslo, Norway Ronald de Krijger, Rotterdam, The Netherlands Laurence de Leval, Lausanne, Switzerland Michael den Bakker, Rotterdam, The Netherlands Joachim Diebold Luceme Switzerland Arzu Ensari, Ankara, Turkey Irene Esposito, Düsseldorf, Germany Fabio Facchetti, Brescia, Italy Falko Fend, Tübingen, Germany Jean-Francois Flejou, Paris, France Christopher Fletcher, Boston, MA, USA Maria Pia Foschini, Bologna, Italy Ondrej Hes, Plzen, Czech Republic Jason L. Hornick, Boston, MA, USA Shu Ichihara, Nagoya, Japan Thomas Kirchner, Munich, Germany David Klimstra, New York, NY, USA

Janina Kulka, Budapest, Hungary Alexander Lazar, Houston, TX, USA Antonio Lopez-Beltran, Cordoba, Spain Xavier Matias-Guiu, Barcelona, Spain Thomas Mentzel, Friedrichshafen, Germany Markku Miettinen, Bethesda, MD, USA Holger Moch, Zürich, Switzerland Rodolfo Montironi, Ancona, Italy Mauro Papotti, Turin, Italy Giuseppe Pelosi, Milan, Italy Aurel Perren, Bern, Switzerland Guido Rindi, Rome, Italy Christoph Röcken, Kiel, Germany Andreas Rosenwald, Würzburg, Germany Anna Sapino, Turin, Italy Aldo Scarpa, Verona, Italy Peter Schirmacher, Heidelberg, Germany Kurt Werner Schmid, Essen, Germany Fernando Schmitt, Porto, Portugal Puay-Hoon Tan, Singapore Tibor Tot, Falun, Sweden Marc van de Vijver, Amsterdam, The Netherlands Zsuzsanna Varga, Zürich, Switzerland Giuseppe Viale, Milan, Italy Giuseppe Zamboni, Verona, Italy Nina Zidar, Ljubljana, Slovenia

Aims and Scope

Mission statement: To advance the scientific basis of human pathology by the publication (encouragement and dissemination) of high quality research (including molecular and translational studies) and thereby contribute to patient care. Manuscripts of original studies reinforcing the evidence base of modern diagnostic pathology, using immunocytochemical, molecular and ultrastructural techniques, will be welcomed. In addition, papers on critical evaluation of diagnostic criteria but also broadsheets and guidelines with a solid evidence base will be considered. Consideration will also be given to reports of work in other fields relevant to the understanding of human pathology as well as manuscripts on the application of new methods and techniques in pathology. Submission of purely experimental articles is discouraged but manuscripts on experimental work applicable to diagnostic pathology are welcomed. Biomarker studies are welcomed but need to abide by strict rules (e.g. REMARK) of adequate sample size and relevant

marker choice. Single marker studies on limited patient series without validated application will as a rule not be considered. Case reports will only be considered when they provide substantial new information with an impact on understanding disease or diagnostic practice.

Copyright Information

For Authors

As soon as an article is accepted for publication, authors will be requested to assign copyright of the article (or to grant exclusive publication and dissemination rights) to the publisher (respective the owner if other than Springer). This will ensure the widest possible protection and dissemination of information under copyright laws.

More information about copyright regulations for this journal is available at www.springer.com/428

For Readers

While the advice and information in this journal is believed to be true and accurate at the date of its publication, neither the authors, the editors, nor the publisher can accept any legal responsibility for any errors or omissions that may have been made. The publisher makes no warranty, express or implied, with respect to the material contained herein.

All articles published in this journal are protected by copyright, which covers the exclusive rights to reproduce and distribute the article (e.g., as offprints), as well as all translation rights. No material published in this journal may be reproduced photographically or stored on microfilm, in electronic data bases, on video disks, etc., without first obtaining written permission from the publisher (respective the copyright owner if other than Springer). The use of general descriptive names, trade names, trademarks, etc., in this publication, even if not specifically identified, does not imply that these names are not protected by the relevant laws and regulations.

Springer has partnered with Copyright Clearance Center's RightsLink service to offer a variety of options for reusing Springer content. For permission to reuse our content please locate the material that you wish to use on link.springer.com or on springerimages.com and click on the permissions link or go to copyright.com and enter the title of the publication that you wish to use. For assistance in placing a permission request, Copyright Clearance Center can be contacted directly via phone: +1-855-239-3415, fax: +1-978-646-8600, or e-mail: info@copyright.com.

 $\ \, {\mathbb O}$ Springer-Verlag Berlin Heidelberg 2017

V.i.S.d.P F. T. Bosman

Journal Website

www.springer.com/428

Electronic edition: link.springer.com/journal/428

Subscription Information

Virchows Archiv is published 12 times a year. Volumes 470 (6 issues) and 471 (6 issues) will be published in 2017.

ISSN: 0945-6317 print version ISSN: 1432-2307 electronic version For information on subscription rates please contact Springer Customer Service Center: customerservice@springer.com

The Americas (North, South, Central America and the Caribbean)

Springer Journal Fulfillment, 233 Spring Street, New York, NY, 10013-1578, USA Tel. 800-SPRINGER (777-4643); 212-460-1500 (outside North America)

Outside the Americas

Springer Customer Service Center GmbH Tiergartenstr. 15, 69121 Heidelberg, Germany Tel.: +49-6221-345-4303

Advertisements

E-mail contact: anzeigen@springer.com

Disclaimer

Springer publishes advertisements in this journal in reliance upon the responsibility of the advertiser to comply with all legal requirements relating to the marketing and sale of products or services advertised. Springer and the editors are not responsible for claims made in the advertisements published in the journal. The appearance of advertisements in Springer publications does not constitute endorsement, implied or intended, of the product advertised or the claims made for it by the advertiser.

Office of Publication

Springer-Verlag GmbH, Tiergartenstraße 17, 69121 Heidelberg, Germany

Part of Springer Science+Business Media





29th European Congress of Pathology

Pathology for Patient Care

2 – 6 September 2017 RAI Amsterdam, The Netherlands

www.esp-congress.org

Abstracts

was completely occupied by a solid, white, rubbery mass, with areas of necrosis and hemorrhage, which invaded the epididymis and the mediastinum testis. It had a solid and infiltrative growth pattern, exhibiting small blue round cells, crushing artefacts, rosette formation and severe cytological atypia. Positivity for CK8/18 and Synaptophysin(focal), CD99 and CD56(strong and diffuse) was depicted.

Conclusion: Surgical resection is the treatment of choice for most cases of SM given their chemo-resistance. However, Pathologists should be aware of PNET SM and report it, as PNET-specific chemotherapy was shown to be effective in treating this TGCT subtype.

E-PS-18-004

Clinical case of multifocal primary tumour: Is the additional examination of the body required in case of malignant tumour of the urinary bladder?

V. Sikora*, A. Romaniuk, M. Lyndin, R. Moskalenko, A. Piddubnyi *Sumy State University, Dept. of Pathology, Ukraine

Objective: To determine the histogenesis of the urinary bladder (UB) neoplasia under suspected risk of multifocal pathology.

Method: Histological and immunohistochemical (IHC) examinations were carried out in several stages: 1) Hematoxylin and eosin; 2) CKpan, CD45 and Vimentin; 3) CKLMW, CKHMW, CK7 and 20; 4) AR, PSA, AMACR.

Results: The first stage, presented by histological examination of the formation in the UB revealed the growth of the undifferentiated malignant tumour. At the same time, the lesions with tubular-trabecular nature were revealed. For better understanding of the tumour nature the IHC examination (2,3,4 stages) was carried out. The second stage of IHC showed the epithelial nature of both malignant tumours (CKpan« + », CD45«-», Vimentin«-»). The third stage showed that the tissue of adenocarcinoma of the prostate was heterogeneously positive for CKLMW«+/-» and negative for CKHMW, CK7 and 20, but the tissue of undifferentiated UB tumour expressed all types of CK. The fourth stage of IHC showed that in the tissue of adenocarcinoma the reaction was positive for AR, PSA, AMACR and in undifferentiated UB tumour it was negative for AR and PSA and heterogeneously positive for AMACR«+/-». By comprehensive study the final diagnosis was determined: combined malignant tumour-invasive urothelial carcinoma of the UB and prostate acinar adenocarcinoma (9(5 + 4) according to D.F.Gleason).

Conclusion: This clinical case demonstrates the development of multifocal malignant pathology with lesions of the urinary bladder and prostate. With the presence of the urinary bladder carcinoma, another malignancy can develop within the same topographic area or other systems. For better differentiation of tumour histogenesis the comprehensive histological and immunohistochemical examinations are required.

E-PS-18-005

Histological features with prognostic significance in testicular germ cell tumours

S. E. Giusca*, M. Marinca, L. Lozneanu, I.-D. Caruntu *Grigore T. Popa University of Medicine and Pharmacy, Dept. of Morphofunctional Sciences I, Iasi, Romania

Objective: Our study aims to identify histological features with prognostic and/or predictive role which may be further used to build a score system to inform clinical decision.

Method: We assessed 39 cases of testicular germ cell tumours (TGCTs), focusing on the following particular features: quantification of different tumour subtypes, presence of intratubular germ cell neoplasia, histological pattern, cytoplasm appearance, nuclear pleomorphism, mitotic index, tumour necrosis, inflammatory lymphocytic infiltrate. These variables

were analyzed in relationship with several clinicopathological characteristics and patients' outcomes. For statistical analysis we used exact tests and Spearman's rho.

Results: The presence of multiple tumour subtypes increased the risk for distant metastases. The glandular pattern was correlated with a better overall survival (OS) as compared to the papillary pattern that increased the risk of death. Cellular pleomorphism was negatively correlated with OS. No similar results were obtained for a high mitotic index. The presence of acidophilic cytoplasm could predict the global therapeutic response rates. The lymphocytic infiltrate, assessed through its qualitative and quantitative expression, could be proposed as a prognostic and predictive marker.

Conclusion: The evaluation of several non-conventional histological features in TGCTs offers complementary data to optimize the prognostic stratification and guide the therapeutic decision.

E-PS-18-006

A case report of a primary renal well differentiated neuroendocrine tumour

S. Khalil*

*Al-Assad University Hospital, Dept. of Pathology, Damascus, Syrian Arab Republic

Objective: A 58 year old man suffering from recurrent swelling of his legs and losing weight in the last few months. Direct physical examination was unremarkable, his laboratory values showed decreased hemoglobin (9.57 G/dl), increased WBC (10.2x1000, 80 % neutrophils), proteinuria, and normal Urea and Creatinine. CT scan revealed a mass involving the inferior lobe of the right kidney measuring 7 cm in greatest dimension. Right nephrectomy was performed on the patient.

Method: Gross examination showed a white-beige solid and well demarcated tumour, the renal tissue looked normal. The applied sections showed proliferation of packed trabeculae, nests and cords of cells having eosinophilic granular cytoplasm and uniform nuclei with stippled chromatin, no mitotic activity neither necrosis could be seen despite generous sampling. The tumour growth was limited to the renal borders.

Results: Immunohistochemistry revealed positive staining for CD99, Chromogranin, and negative result for CD10 and CK7 with positive internal control, Ki-67 showed very low index (<1 %).

Conclusion: Microscopic morphology and the applied immunohistochemistry were consistent with well differentiated neuroendocrine tumour (carcinoid).

E-PS-18-007

Retroperitoneal and pulmonary metastases from burned-out testicular germ cell tumour as initial clinical presentation: Report of two cases

V. Filipovski*, K. Kubelka-Sabit, D. Jasar, V. Janevska *Clin. Hospital Acibadem/Sistina, Dept. of Histopathology, Skopje, F.Y. Republic of Macedonia

Objective: To present two cases of metastatic deposits from burned-out testicular germ cell tumours (GCTs) as initial clinical presentation of the disease.

Method: Case 1: Retroperitoneal necrotic tumour from a 40-year old male patient, and fragments from the lumbar vertebra were submitted for analysis. Case 2: Core biopsy of a lung mass from a 26-year old male patient was received for analysis. Both cases were routinely processed and additional immunoihistochemical analyses were performed.

Results: Case 1: Necrotic retroperitoneal tumour had only a few vital germ cell tumour cells positive for PLAP and CD30. In the testis, an area measuring 17 mm showed hyalinization, sclerosis and calcification with cystic structures presenting mature teratoma positive for cytokeratins 7

