

VIRCHOWS ARCHIV

European Journal of Pathology

Volume 471 · Supplement 1 · September 2017



European Society of Pathology



29th European Congress of Pathology
Pathology for Patient Care
2 – 6 September 2017
Eti, Amsterdam, The Netherlands

www.esop-congress.org

Abstracts

 Springer

428 - 471 (S1) 51-5352 (2017)
ISSN: 0945-6317 (print)
ISSN: 1432-2307 (electronic)

 European Society of Pathology

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, Lucerne, 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.

© 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

with bone grafting, Pauwels osteotomy and plate osteosynthesis using DCS with favorable recovery. At that time, histopathology was negative for malignancy and the radiologic data supported the findings. The patient was stationary on routine radiologic examination (available-end 2013). In 2017, presented with pain/difficulty walking, radiology showed the presence of the osteosynthetic metallic material and changes indicative of malignancy, no metastasis. Arteriography with right AFP embolisation and surgical biopsy were done, followed by segmental femoral resection with modular bipolar prosthesis, good recovery. The surgical specimens were adequately processed-histopathologically/immunohistochemically examined.

Results: On microscopy, histopathological profile was: conventional osteosarcoma with extension in surrounding soft tissue. Immunohistochemic profile: CD56 diffusely positive, MDM2-focally positive, S100-positive, Ki67-positive in 40 % of neoplastic cells.

Conclusion: Although very rare, published cases of osteosarcoma secondary to metallic implants do exist. Such cases should be reported because the literature does not provide sufficient data and further studies are needed in assessing additional risk factors, such as infection and trauma.

PS-23-005

New approach to understanding of appearance and progression of osteoarthritis

A. Romaniuk*, M. Lyndin, S. Romaniuk

*Sumy State University, Dept. of Pathology, Ukraine

Objective: To study the structural features of the cartilage and the tidemark under osteoarthritis, to determine the function of the tidemark while the destruction of osteocartilaginous tissue.

Method: We used the following methods: histological and electron-microscopic methods were used for studying the structural features of normal articular cartilage and articular cartilage under osteoarthritis; immunohistochemical study of p53, osteopontin, osteonectin, type I collagen, type II collagen and MMP1 receptors.

Results: Articular cartilage is represented by two clearly delineated zones (noncalcified and calcified cartilage) that have different histochemical and electron microscopic structural features of parenchymal and stromal components, the tidemark is the boundary between them. Under osteoarthritis it has qualitative (changes in hematoxylin staining intensity, Van Gieson's staining, PAS reaction, p53, OPN receptors) and quantitative (thickening, duplication, fragmentation and even total disappearance) transformations. This is followed by changes in the structure of articular cartilage and subchondral bone.

Conclusion: Under osteoarthritis the articular cartilage is accompanied by progressive destruction of extracellular matrix and dystrophic changes of chondrocytes. It is connected with preceding modification of the tidemark that on the one hand serves as the barrier between osteolytic properties of synovial fluid and subchondral bone, and on the other hand—between osteosynthetic stimuli of the bony tissue.

PS-23-006

A case of fatal phosphaturic mesenchymal tumour

C. Poulivos*, M. Yavropoulou, I. Yovos, P. Hytiroglou

*AUTH, Pathology, Thessaloniki, Greece

Objective: Phosphaturic mesenchymal tumour (PMT) is a rare neoplasm; the biologic behavior of PMT is currently under investigation. We present a case of PMT with a protracted course over 12 years leading to a fatal outcome.

Method: A 39 year-old man presented with weakness in 2004 and was found to have decreased serum phosphorus, phosphaturia and lack of 1, 25-dihydroxyvitamin D3. Four years later he developed a painful left calf

mass. The lesion was resected, but recurred causing extreme pain and dysfunction. Above-knee amputation was performed.

Results: Dissection of the specimen showed multiple soft tissue tumours in all muscle compartments of the calf, measuring up to 18 cm. An additional, separate lesion was found in the distal tibial metaphysis. Histological examination of all lesions showed a cellular spindle cell neoplasm with variously sized vessels, wide vessel-like spaces and scattered deposits of calcified extracellular material. The tumour infiltrated skeletal muscles, subcutaneous fat and the proximal end of the fibula. The tibial lesion had identical histology. Three years after the amputation the patient developed multiple metastases in both lungs and died.

Conclusion: This case illustrates that PMT may not only disseminate locally but also metastasize and cause death.

PS-23-008

Cell cycle regulatory protein expression in multinucleated giant cells: Do they proliferate?

T. Krenacs*, M. E. Maros, Z. Sapi, M. Szendroi, R. Forsyth, P. Picci, M.-S. Benassi, N. Athanasou

*Semmelweis University, 1st Dept. of Pathology, Budapest, Hungary

Objective: By studying replication activity in the mononuclear cell fraction of giant cell tumour of bone (GCTB) we detected cell cycle regulatory proteins also in multinucleated giant cells. Our objective was to test if osteoclast-like giant cells can enter and progress into the cell cycle.

Method: Formalin-fixed, paraffin-embedded sections from 30 GCTB cases were analyzed for the expression of nuclear proteins involved in driving or controlling phases of cell cycle progression.

Results: In giant cells, of Ki67 protein specific antibodies, SP6 stained most cell nuclei, while B56 and Mib1; and the replication licensing mcm2 stained occasionally a few. Many nuclei were positive for the cyclin dependent kinase (cdk) 4/6 and all nuclei were stained for its complexing partner cyclin D1. Of later G1/S-phase promoters, cdk2 was rare, while its complexing partner cyclin E, their cdk inhibitor p21 waf1, the tumour suppressor p53 and the cell cycle controlling cyclin G1 were seen in most giant cell nuclei. However, none of the post-G1 phase markers including cyclin A, geminin or aurora B were noticed in giant cells.

Conclusion: Multinucleated osteoclast-like giant cells show early signs of cell replication which, however, is arrested at late G1-phase possibly driven by p53 induced p21 waf1 and cyclin G1 upregulation.

PS-23-009

Coexisting cutaneous Kaposi sarcoma with Leishmania

Z. Tsakiraki*, A. R. Gouloumis, A. Zacharitou, V. Damaskou, G. Poulakou, A. Spathis, S. Konstantoudakis, P. Foukas, I. Panayiotides, S. Tsioudras

*2nd Department of Pathology, Attikon University Hospital, Athens, Greece

Objective: Infection with Leishmania spp is common in HIV (+) patients residing in endemic areas. We herewith describe a rare case of coexistence of Kaposi sarcoma (KS) and leishmaniasis in the same cutaneous lesion in a HIV (+) patient.

Method: A 43-year old HIV (+) patient presented with fever of unknown origin, as well as several violet-colored, elevated, nodular lesions and plaques on the neck, forehead and both hands. A cutaneous punch biopsy was performed, with the working diagnosis of KS

Results: Histology showed typical appearance of KS; neoplastic endothelial cells were immunopositive for HHV-8. Moreover, the lesion abounded with macrophages containing intracytoplasmic, dot- or ring-like inclusions, of a bluish-purple appearance with a Giemsa stain; coexistent leishmaniasis was hinted and confirmed by means of a polymerase