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Tel. +39 050 313011
Fax +39 050 3130300
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Divisione Italiana della International Academy of Pathology

PACINI
EDITORE
MEDICINA

Updated information for Authors including editorial standards for the preparation of manuscripts

Pathologica is intended to provide a medium for the communication of results and ideas in the field of morphological research on human diseases in general and on human pathology in particular.

The journal welcomes contributions concerned with experimental morphology, ultrastructural research, immunocytochemical analysis, and molecular biology. Reports of work in other fields relevant to the understanding of human pathology may be submitted as well all papers on the application of new methods and techniques in pathology. The official language of the journal is Italian. Articles from foreign authors will be published in English.

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2) A separate covering letter, signed by every Author, must state that the material submitted has not been previously published, and is not under consideration (in whole or in part) elsewhere, and that it is conform with the regulations currently in force regarding research ethics. The Authors are solely responsible for the statements made in their paper, and must state that they have obtained the informed consent of patients for their participation in the experiments and for the reproduction of photographs. For studies performed on laboratory animals, the authors must state that the relevant national laws or institutional guidelines have been adhered to.

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The second page should contain the abstract. At the end of the text should appear the bibliography, the legends to the tables and figures, and specification (where applicable) of the congress at which all or part of the data in the paper may have already been presented.

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CONTENTS

ORIGINAL ARTICLES

Pathological spectrum in recurrences of glioblastoma multiforme

G. Marucci, P.V. Fabbri, L. Morandi, D. De Biase, E. Di Oto, G. Tallini, C. Sturiale, E. Franceschi, G.P. Frezza, M.P. Foschini

Introduction. Glioblastoma (GBM) is the most frequent primary malignant brain tumour. Despite advances in treatment its prognosis remains poor. Histological features of GBM are well known. On the contrary histological description of recurrences is still not available. The aim of this study was to describe the morphological, immunohistochemical and molecular features of recurrent GBMs.

Methods. 25 recurrent GBMs, diagnosed after 2005, were collected. All patients had undergone an adjuvant treatment regimen (temozolomide and/or radiotherapy). All cases were immunostained using anti-GFAP, Olig2 and Nogo-A antisera. MGMT and IDH1 status was reassessed. Features of the recurrences were compared with those of primary GBMs, time of recurrence and survival.

Results. Recurrences were divided morphologically into three groups: 1) recurrences displaying the same features of primary GBM, were highly cellular, had the fastest progression and the worst prognosis; 2) recurrences changing dramatically morphological appearance, had a slightly longer survival, 3) poorly cellular recurrences, with sparse neoplastic cells intermingled with reactive and necrotic tissue, displayed the slowest progression and longer survival. MGMT and IDH1 status remained unchanged between primary tumours and recurrences.

Discussion. GBM histological subtypes display different reactions to adjuvant treatments, offering a possible role in predicting different recurrence and survival time.

The major prognostic factors of thymomas: about a Tunisian study of 100 cases

M. Mlika, M.S. Boudaya, S. Laabidi, Y. Zaimi, H. Smadhi, A. Marghli, F. El Mezni, T. Kilani

Aim. Thymomas are characterised by their rarity, histologic variability and peculiar patterns of recurrence. Herein, we present the experience of a single institution and aim to highlight the major prognostic factors of these tumours.

Materials and methods. We present a retrospective study on 100 thymomas diagnosed between 1994 and 2011. Statistical analyses were performed using version 18.0 SPSS. The Kaplan Meier method was used to estimate survival, and survival curves were compared using the Log-Rank test. A $p < 0.05$ was considered statistically significant.

Results. 50 men and 50 women underwent surgical resection for thymoma. Radiologic findings highlighted a diagnosis of thymoma in 51% of cases. The thymomas were classified as stage I in 25 cases, stage II in 47 cases, stage III in 25 cases and stage IV in 3 cases. According to the WHO classification, tumours were classified as type A in 14 cases, type AB in 24 cases, type B1 in 17 cases, type B2 in 20 cases, type B3 in 8 cases, B1/B2 in 8 cases and B2/B3 in 9 cases. The mean survival of patients was 136 months. Age, sex, tumour size, WHO classification and Masaoka stage were evaluated as prognostic factors. Univariate analysis showed that the major prognostic factors were WHO classification ($p = 0.019$) and Masaoka Stage ($p = 0.0001$).

Conclusion. Our results place emphasis on the prognostic value of WHO classification and Masaoka stage in thymomas; in addition, the necessity of improving reproducibility of microscopic classification to avoid discrepancies among prognostic groups is highlighted.

CASE REPORTS

An unusual tumour of the lung

L. Ayadi, N. Abid, S. Makni, I. Bahri, I. Frikha, T. Sellami-Boudawara

We report a case of a 51-year-old woman with a solitary mast cell tumour of the lung, a rare neoplasm with only three previously-reported cases reported in the literature. Unlike previous cases, the tumour in the present case was bulky, measuring 14 cm in diameter and budding into the segmental bronchus. Histologically, it showed proliferation of typical metachromatic mast cells intermingled with undifferentiated cells with a ratio of 3:1. The neoplastic mast cells stained strongly with tryptase, CD117, CD68 and CD45, CD14 and CD33; whereas the undifferentiated cells lacked all these markers and expressed EMA and cytokeratin. Histological examination of bone marrow and laboratory data were unremarkable. To our knowledge, this is the fourth case of solitary extracutaneous mastocytoma of the lung. The differentiating features of this neoplasm and a review of literature are presented.

Jejunal lymphangioma: an unusual cause of intussusception in an adult patient

F. Limaïem, T. Khalfallah, L. Marsaoui, S. Bouraoui, A. Lahmar, S. Mzabi

Adult intussusception is a relatively rare clinical entity. Almost 90% of cases of intussusception in adults are secondary to a pathologic condition that serves as a lead point. Lymphangioma of the small bowel is an unusual tumour that has been rarely reported to cause intussusception. In this paper, we present a rare case of adult intussusception due to jejunal lymphangioma. A 22-year-old female patient with a medical history significant for anaemia presented with intermittent colicky abdominal pain, diarrhoea and oedema of the inferior limbs for the past three months. Ultrasonography and CT scan revealed a typical target sign with dilated intestinal loops. At laparotomy, a jejuno-jejunal intussusception was found. Partial resection of the jejunum was performed. Macroscopic examination of the surgical specimen revealed a pedunculated polyp measuring 2 cm in diameter. Histological sections of the polyp revealed in the lamina propria and submucosal layer of the jejunum several markedly dilated thin-walled lymphatic spaces lined with single layers of flat endothelial cells. The final pathologic diagnosis was submucosal lymphangioma. This case report indicates that intussusception, although rare in adults, should be considered in the differential diagnosis of abdominal pain. Moreover, it should be taken into consideration that lymphangioma is one of the possible lesions that can cause intussusception.

Segmental infarction of the testis: can frozen sections avoid orchidectomy?

E. Pacella, F. Grillo, C. Lapetina, F. Cabiddu, L. Auriati, G. Tunesi, L. Mastracci

Segmental infarction (SI) of the testis is a rare condition that can masquerade as a mass lesion, thus requiring exclusion of tumour. If clinical exams do not exclude a neoplastic lesion with certainty, orchidectomy is usually performed. A case of SI of the testis is presented; the use of frozen section of the enucleated mass demonstrated the ischaemic nature of the lesion, so avoiding orchidectomy. The 8 year follow-up was uneventful. The use of frozen section in SI could permit the selection of cases in which testicular-sparing surgery should be considered.

Multifocal sclerosing angiomatoid nodular transformation of the spleen in a patient with simultaneous metachronous liver metastasis after colon cancer surgery: a first case report

A.-K. Mueller, C. Haane, K. Lindner, P.J. Barth, N. Senninger, R. Hummel

Sclerosing angiomatoid nodular transformation of the spleen (SANT) is a benign, extremely rare vascular lesion of the spleen with unknown pathogenesis. SANT is often discovered incidentally, and can sometimes be found in patients with a history of cancer. Based on absent definitive radiological signs and varying growth patterns, distinction from malignant processes such as metastasis can be very difficult. Therefore, surgical resection of the spleen is indicated in most cases of patients with history of cancer. We report a case of a bifocal manifestation of SANT in the spleen in a patient with history of colon cancer and newly-diagnosed metachronous liver metastases.

A rare cause of death in infancy: idiopathic infantile arterial calcification

M. Amine, H. Faten, H. Rim, H.S. Nidhal, L. Njim, A. Moussa, A. Zakhama

The aim of this paper is to report the autopsy findings of an Idiopathic Infantile Arterial Calcification-new-born male and describe its follow-up. Y.R, a 23-days-old male, hasn't any relevant personal past medical or family history. The baby was weighing 3.2 kg at birth. He was breast fed and appeared to be perfectly normal. In the last 24 hours, he presented to the family doctor with vomitis, refuse of feeds without fever or diarrhea. He was diagnosed as having gastroenteritis and was medicated accordingly. A few hours later, he had an hematemese episode associated with facial cyanosis. Death occurred despite cardio-pulmonary resuscitation. Forensic autopsy was required. The macroscopic examination showed a bilateral pleural liquid effusion without any other abnormalities. Microscopic investigation revealed a generalized arterial calcification of all organs. Idiopathic arterial calcification is primarily a disease of infancy. It is characterized pathologically by generalized arterial calcification within the internal

elastic lamina, associated with intimal fibrous proliferation. Death occur often in the first sixth months due to heart failure.

Cytopathology in the diagnostic appraisal of uncommon malignant neoplastic lesions

A. Kalogeraki, S. Derdas, I. Karvela-Kalogeraki, M. Karvelas-Kalogerakis, G. Segredakis, K. Stathias, V. Sinatkas, D. Tamiolakis

Cytology and fine needle aspiration (FNA) cytology are accepted means of diagnosing and typing of common forms of malignant tumors. However, their usefulness for diagnosing less common neoplasms is not clearly established and this study was designed to examine this. We report four unusual cases of patients with malignant neoplasms in which cytology and fine needle aspiration cytology or aspiration biopsy (FNAC, FNAB) contributed significantly in establishing the diagnosis. These cases facilitate the diagnostic capabilities of cytology over a wide spectrum of neoplasms including rare lymphoproliferative disorders and carcinomas.

Diffuse idiopathic pulmonary neuroendocrine cell hyperplasia (DIPNECH) and multiple pulmonary epithelioid hemangioendothelioma (PEH): a case report

F. Erdini, A. Ambrosini Spaltro, A. Ruiu, M. Pittertschatscher, G. Resch, B. Feil, R. Carella

We report a case of a 76-year-old female with multiple lung nodules (Fig. 1 Rx). Pathologic evaluation of the lower left video-assisted thoracoscopic surgery (VATS) lobectomy VATS-lobectomy showed four nodules that were described as pulmonary epithelioid hemangioendothelioma (PEH); the immunohistochemical stains showed that the neoplastic cells expressed CD31, a variable expression for factor VIII and a low expression of CD34. In the remaining parenchyma of the lobe, multiple nests of neuroendocrine cells were observed with immunohistochemical confirmation, and the diagnosis was diffuse idiopathic pulmonary neuroendocrine cell hyperplasia (DIPNECH). To our knowledge, the association between PEH and DIPNECH has never been described in the literature.

