



La **DIAGNOSTICA** **EMATOPATOLOGICA** nell'ERA della **MEDICINA** di **PRECISIONE**

Clinical Case form Ravenna

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Disclosures of Name Surname

I have no conflict of interest to disclose.

R. P.; male, 70 years old.

Medical history:

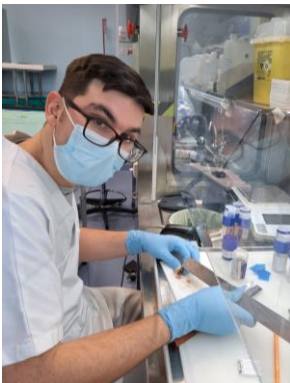
right nephrectomy for clear cell renal cell carcinoma; hypertension, type 2 diabetes, smoker, BPH.

Due to the onset of epigastric pain in January 2023, he underwent, on the recommendation of his primary care physician, an abdominal ultrasound that revealed “two nodular hypoechoic areas measuring 30 and 35 mm in the epigastric and subxiphoid regions, adjacent to the hepatic margin, avascular.”



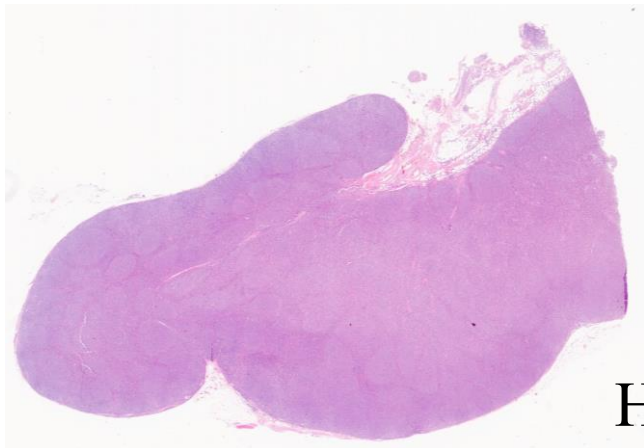
For further diagnostic evaluation, a complete abdominal CT scan with contrast was performed, showing **multiple lymphadenopathies and multiple hypermetabolic adenopathies in PET-TC.**

In light of these findings, following a multidisciplinary discussion with hematology and surgical colleagues, a recommendation was made for right **inguinal lymphadenectomy** for diagnostic purposes.

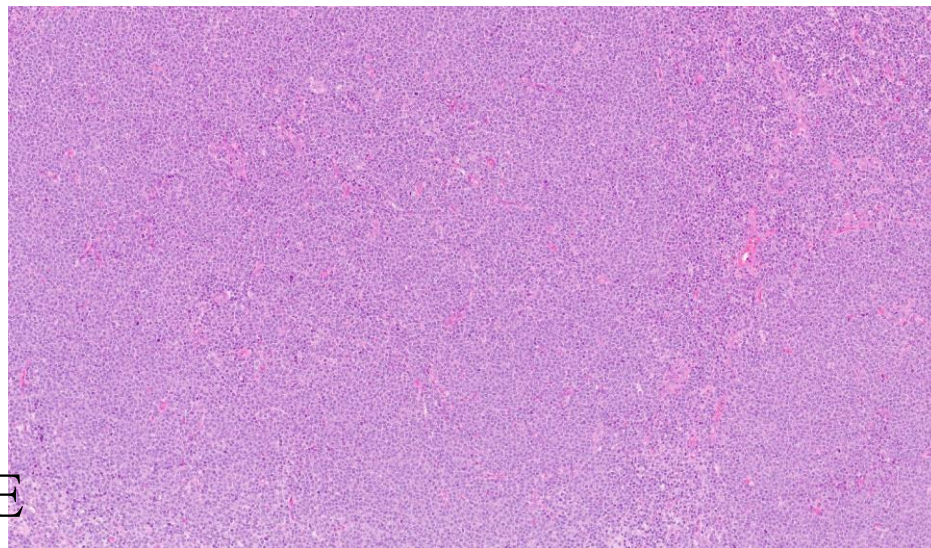


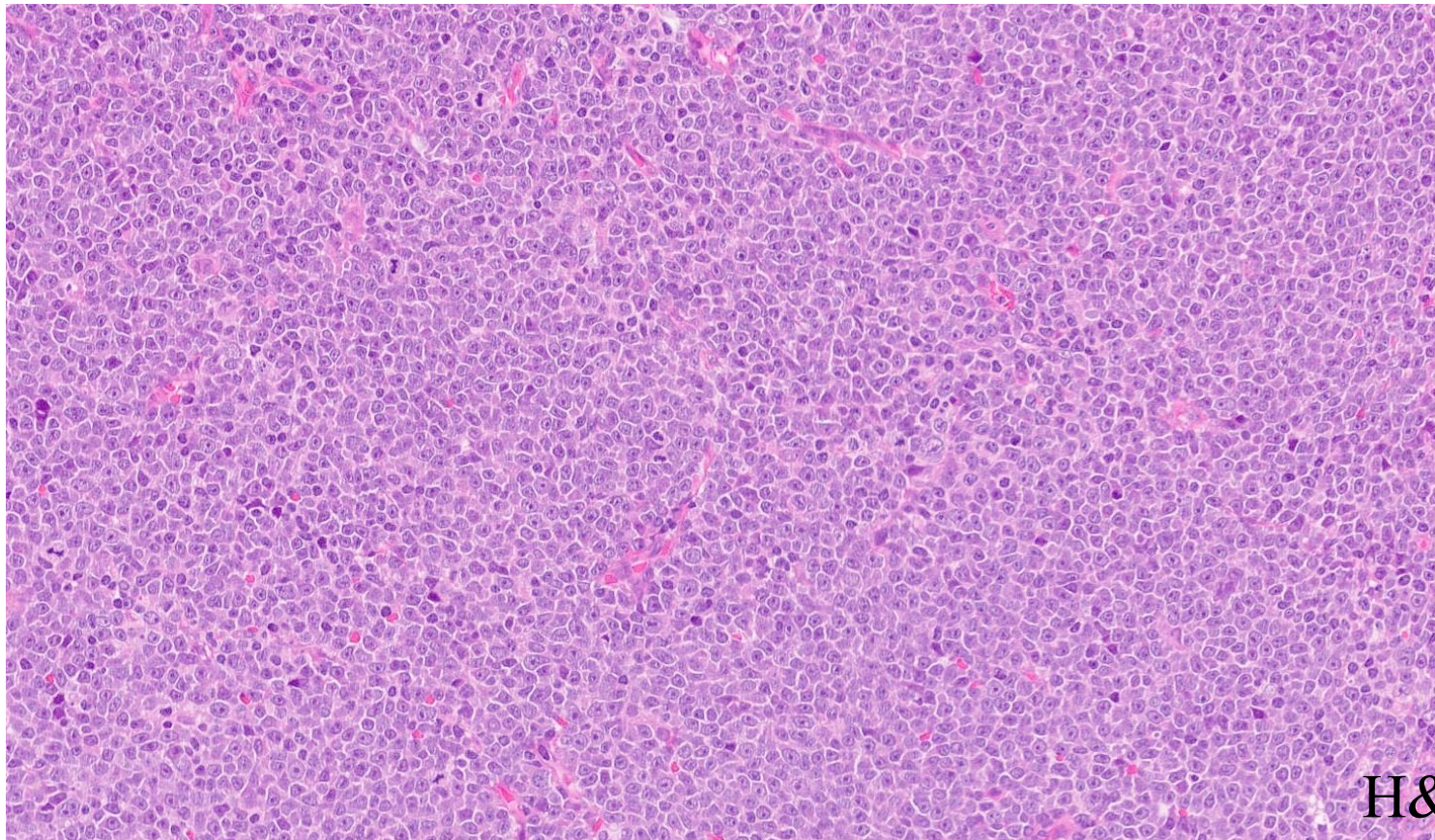
Lymphadenectomy, gross examination:

Lymph node measuring 5.5 x 4 x 2 cm, grayish in cross-section, with a granular appearance.

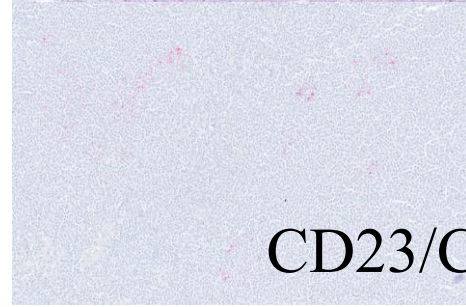
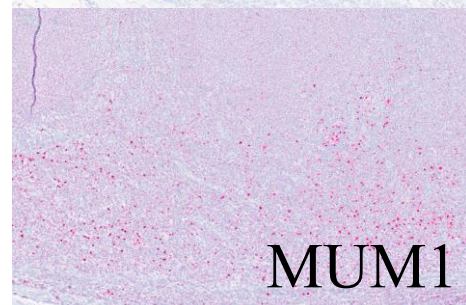
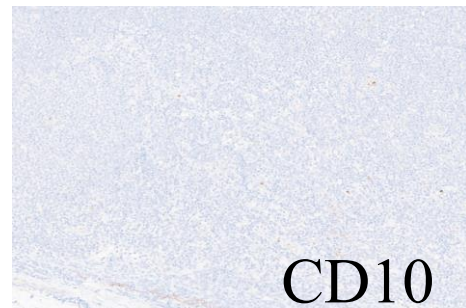
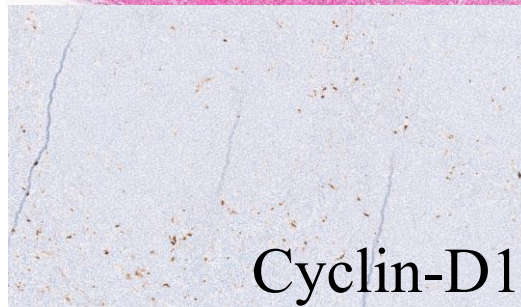
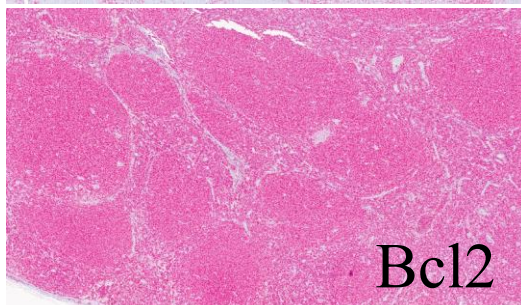
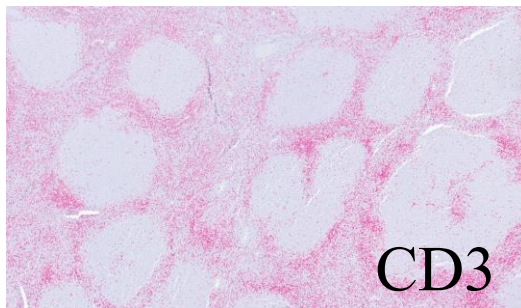
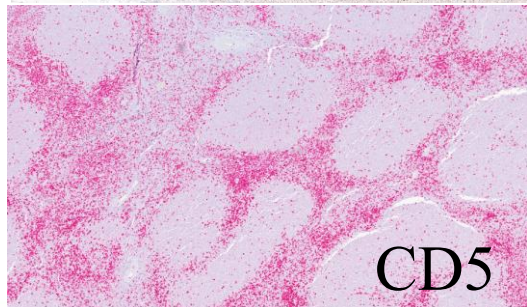
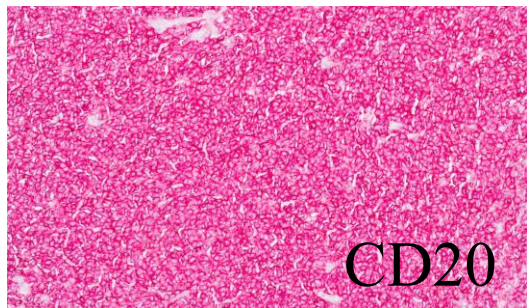


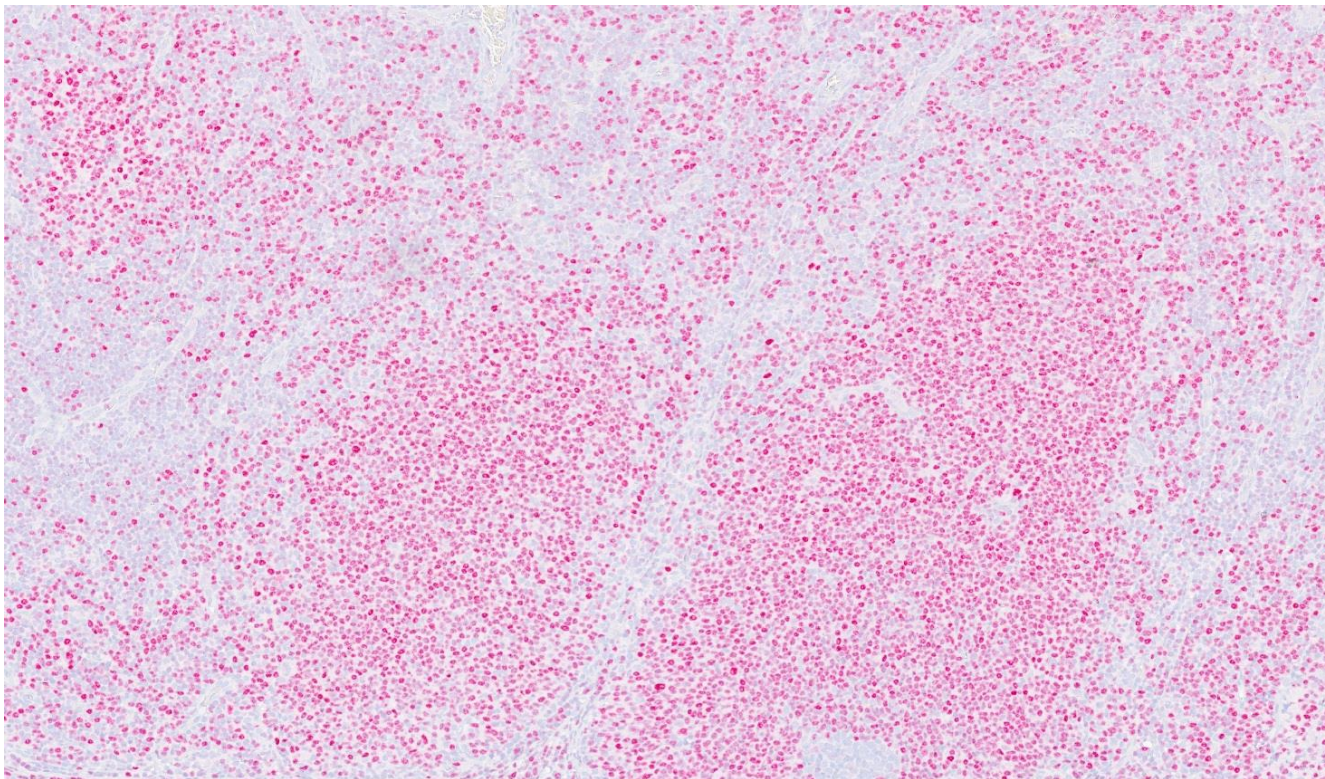
H&E



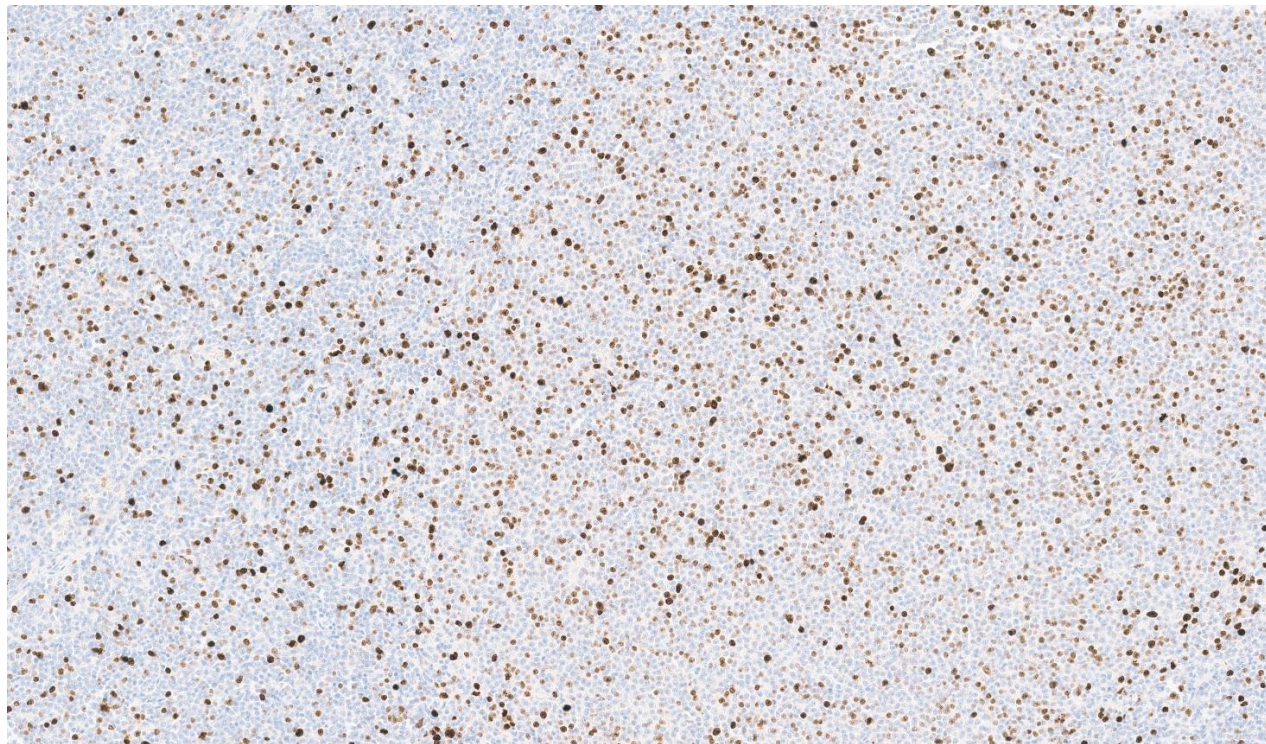


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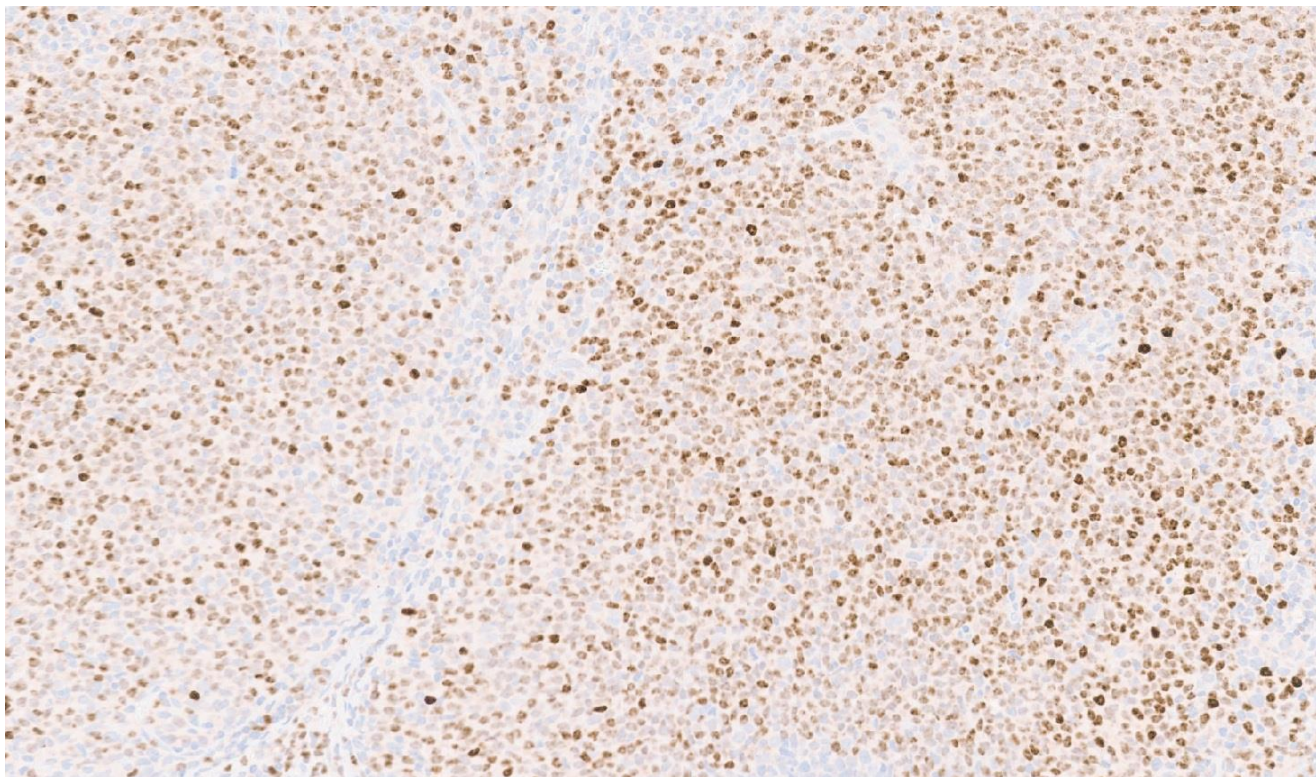




c-myc



Ki67



SOX11

Histopathology



Histopathology 2012, 61, 685–693. DOI: 10.1111/j.1365-2559.2012.04260.x

SOX11 is useful in differentiating cyclin D1-positive diffuse large B-cell lymphoma from mantle cell lymphoma

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Histopathology



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Pleomorphic mantle cell lymphoma morphologically mimicking diffuse large B cell lymphoma: common cyclin D1 negativity and a simple immunohistochemical algorithm to avoid the diagnostic pitfall

Wen-Yu Chuang,^{1,2,3} Hung Chang,⁴ Gwo-Jyh Chang,² Tzu-Hao Wang,⁵ Yu-Sun Chang,⁶ Tong-Hong Wang,⁷ Chi-Ju Yeh,¹ Shir-Hwa Ueng,¹ Hui-Ping Chien,¹ Chiu-Yueh Chang,¹ Yung-Liang Wan⁸ & Chuen Hsueh^{1,6,7} 

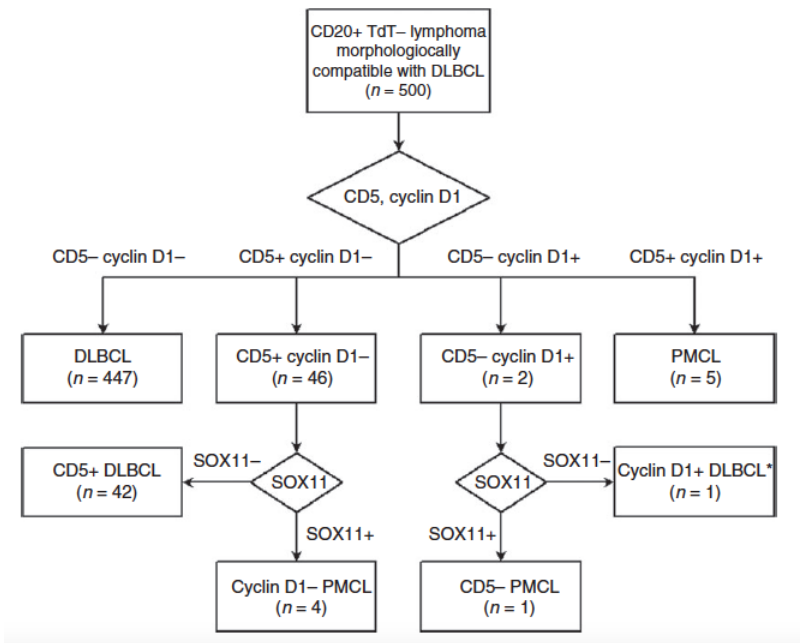
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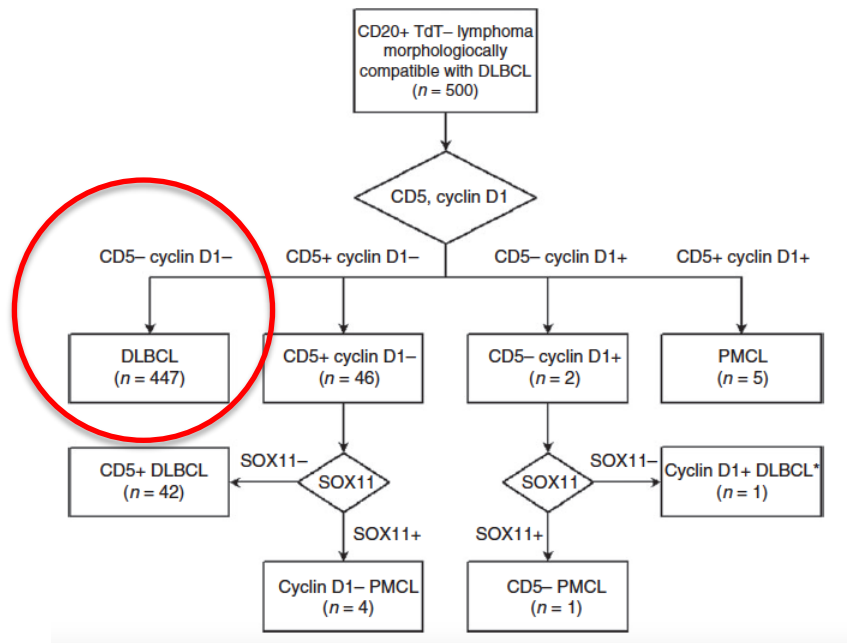
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ORIGINAL ARTICLE

Identification of CD5/Cyclin D1 Double-negative
Pleomorphic Mantle Cell Lymphoma
A Clinicopathologic, Genetic, and Gene Expression Study

Wen-Yu Chuang, MD,† Sheng-Tsung Chang, MD,‡§ Chang-Tsu Yuan, MD,||
Gwo-Jyh Chang, PhD,† Hung Chang, MD,¶ Chi-Ju Yeh, MD,* Shir-Hwa Ueng, MD,*
Hsiao-Wen Kao, MD,¶ Tong-Hong Wang, PhD,# Yung-Liang Wan, MD,** Lee-Yung Shih, MD,¶
Shih-Sung Chuang, MD,‡†† and Chuen Hsueh, MD*#‡‡*

!!! Am J Surg Path, 2020

Microscopic

Lymph node with nodular/diffuse architecture, consisting of medium-to-large-sized, atypical elements with irregular nuclei, prominent nucleoli, and an immunophenotype of CD20+, Bcl2+, Bcl6--/+, Cyclin D1-, CD5--/+, SOX11+, c-myc+, MUM1-, CD10-, TdT-, CD3-, EBV/EBER-, CD30-, ALK1-, and with a proliferation fraction of approximately 60%.

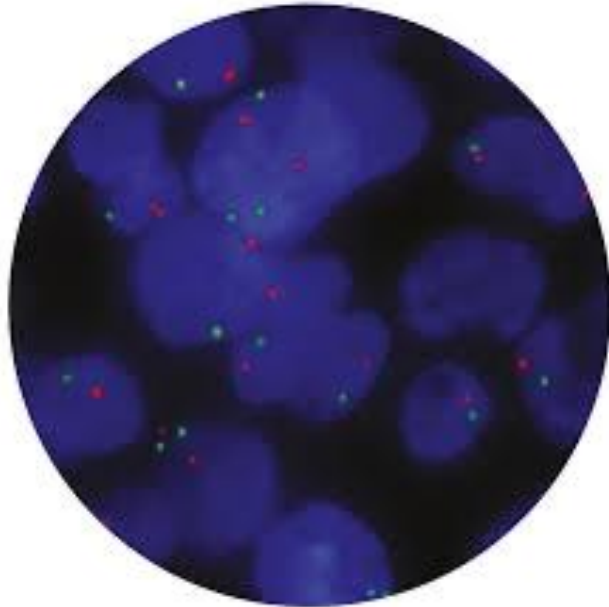
Provisional Diagnosis

The immunomorphological picture suggests a differential diagnosis between a **large B-cell lymphoma** and a **Cyclin D1-negative pleomorphic mantle cell lymphoma**, with partial/weak expression of CD5.

The expression of SOX 11 would point toward the second hypothesis.

Given the peculiarity of the case, it was sent to the Department of Hematology and Lymphopathology at S. Orsola Hospital in Bologna for consultation and to undergo further immunohistochemical and molecular testing ...

Fluorescence In Situ Hybridization results:



t(11;14) CCDN1 +

8q24 MYC +

18q21 BCL2 -
(but increased signals/amplified)

Final diagnosis

The immunomorphological and molecular findings are positive for a peripheral B-cell lymphoma.

A mantle cell form with an aberrant phenotype (negative for Cyclin D1 and CD5), translocated for CCND1 and MYC, and with Bcl2 amplification, is favored.

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<https://doi.org/10.1007/s00428-024-03813-9>

ORIGINAL ARTICLE



Identification of CD5/SOX11 double-negative pleomorphic mantle cell lymphoma

Wen-Yu Chuang^{1,2,3,4} · Hung Chang^{2,5} · Lee-Yung Shih^{2,5} · Tsung-Chieh Lin^{6,7} · Chi-Ju Yeh^{1,2} · Shir-Hwa Ueng^{1,2,3} · Ming-Chung Kuo^{2,5} · Hsiao-Wen Kao^{2,5} · Hsuan Liu³ · Sheng-Tsung Chang⁸ · Chih-Ling Lee⁹ · Kuan-Po Huang¹⁰ · Tong-Hong Wang¹¹ · Yung-Liang Wan¹² · Jau-Song Yu³ · Chuen Hsueh^{1,2,3} · Shih-Sung Chuang⁸ 

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from *Gli Incredibili - Una "normale" famiglia di supereroi* (The Incredibles), 2004, Disney-Pixar





Follow-up

First-line therapy with R-CHOP/R-DHAOx, high-dose Ara-C, and ASCT through October 2023. Following ASCT, anemia and thrombocytopenia recurred, for which steroid therapy was administered, resulting in a recovery of blood counts. No bone marrow biopsy was performed. Maintenance therapy with Rituximab every 8 weeks began in February 2024 (3 years of therapy planned).

Currently in complete remission (PET: DS1)

TC-scan (05/03/2026): no evidence of lymphadenopathy.



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Mosaico del Mausoleo di Galla Placidia



Thank you!

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