

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

CLINICAL CASE

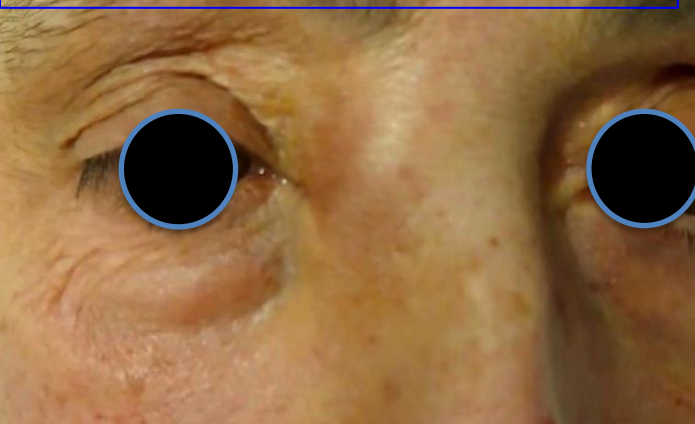
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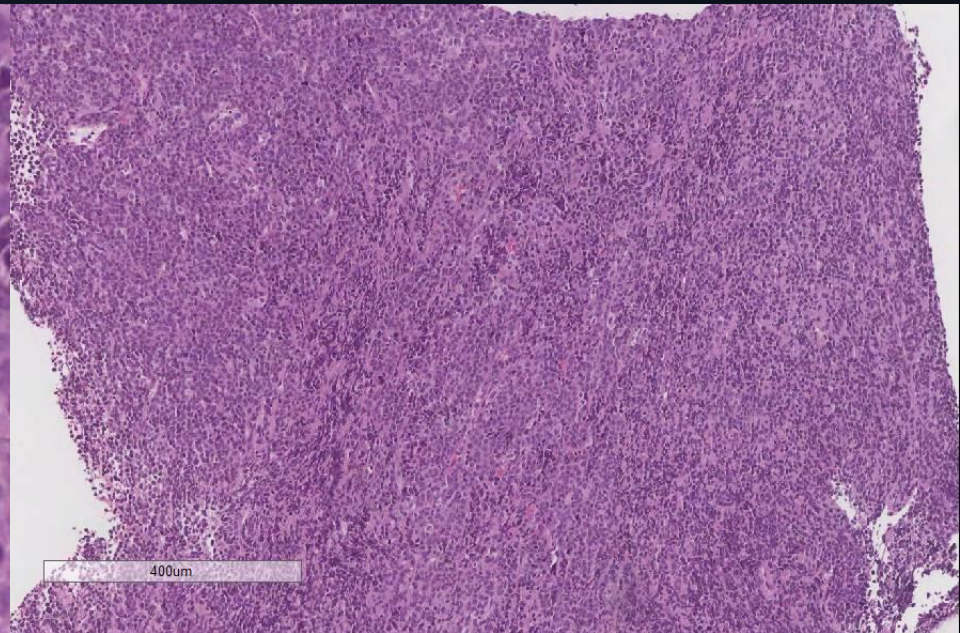
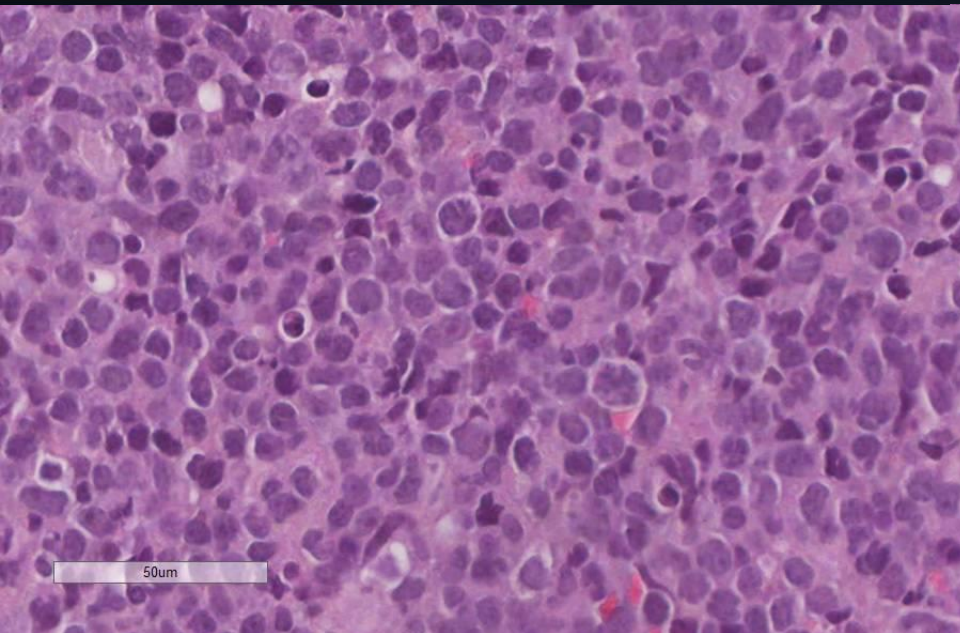
No conflict of interest

- Female, 60 yrs old
- Lesion in inner corner of the right eye

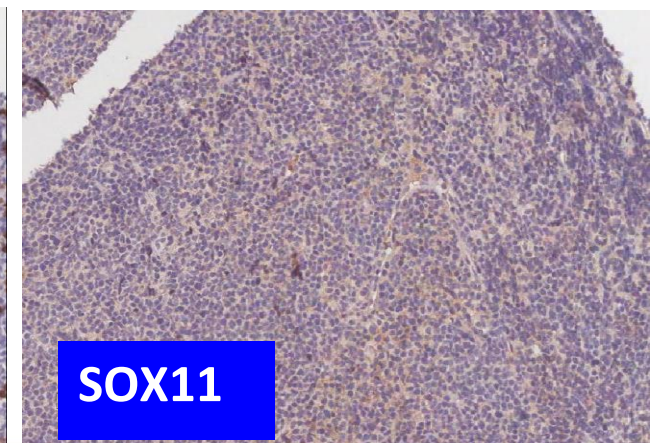
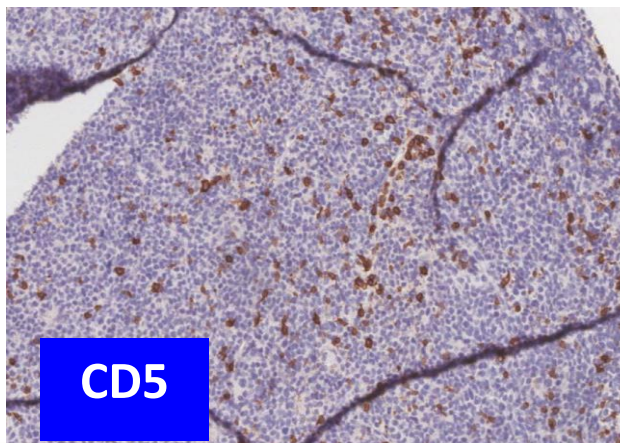
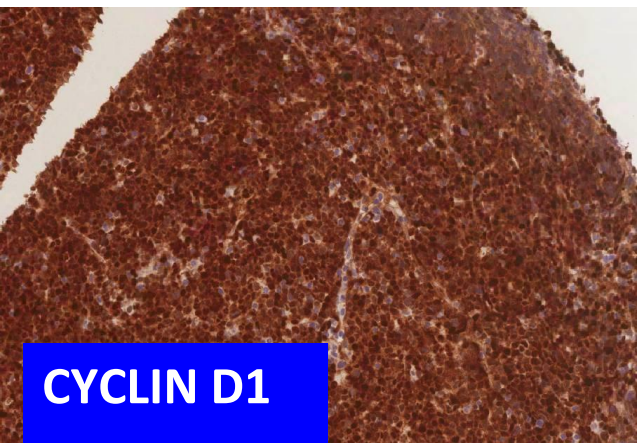
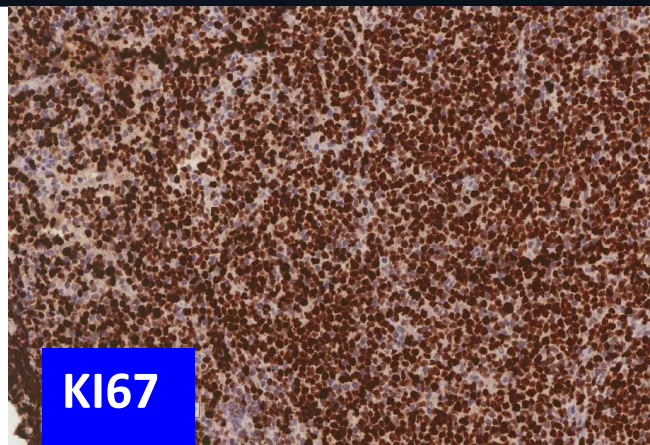
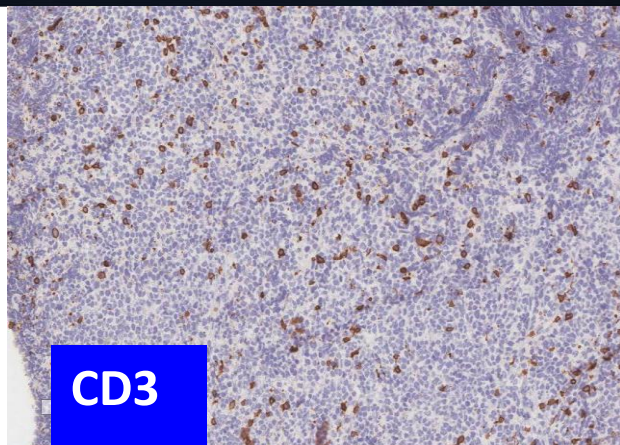
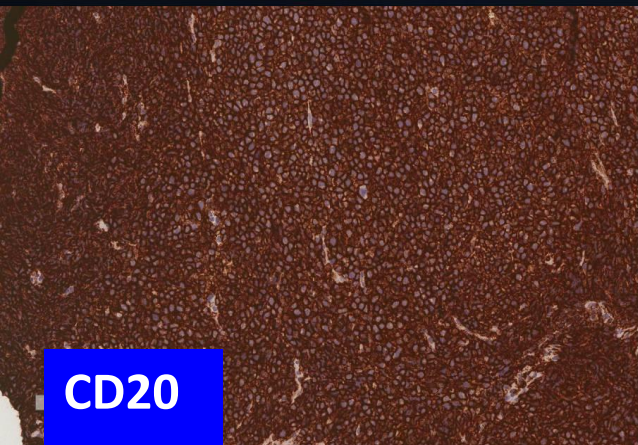


- Blood tests: normal values
- No swollen or palpable lymph nodes
- No splenomegaly

CT: Solid mass ...33 x 21.5 x 30 mm, epicenter at the medial canthus of the right orbit and extension to the nasolacrimal duct, erosion of the right nasal wing and the floor of the frontal sinus, infiltrates some anterior ethmoidal cells, ...and extends into the extraconical orbital adipose tissue



Incisional surgical
biopsy



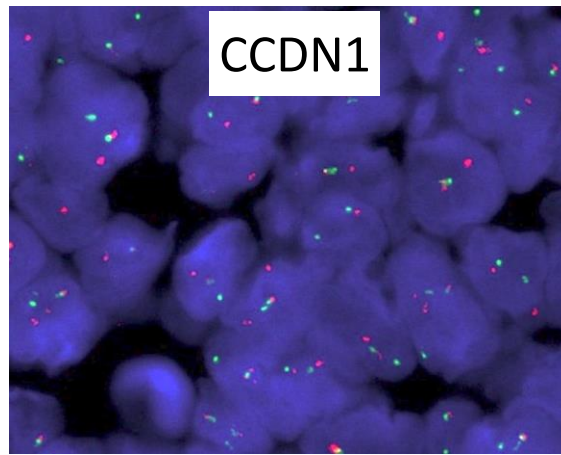
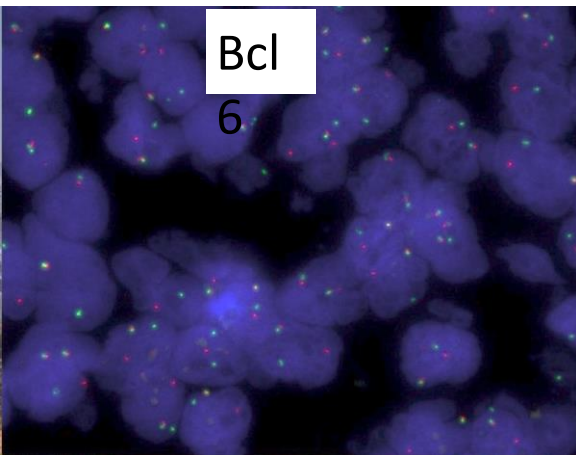
immunostains

positive	negative
CD20, PAX5	CD3
CYCLIND1	CD5, SOX11
BCL6 (80%), MUM1	CD10
BCL2 (95%)	
c-myc (40%)	
Ki67/MIB1 (99%)	
	CD23, Tdt, p53
	EBV/EBER

Diagnostic hypothesis

Mantle cell lymphoma, pleomorphic variant
VS
Large B cell lymphoma, cyclinD1+

FISH ANALYSIS*	Bcl2	Bcl6	C-myc	CCND1
riarrangement	absent	present	absent	present
CNV*	absent	absent	absent	
amplification	absent	absent	absent	



(*) = copy number variation

*: performed at Pathology
Lab Spedali Civili di Brescia,
Piera Balzarini BD, Luisa
Lorenzi MD

Next Generation Sequencing (DNA extracted from paraffin embedded tissue)*

FBXW7(NM_033632.3): c.1513C>T;p.(Arg505Cys) VAF: 40,5%

CDKN2A (NM_001195132.1): c.247C>T;p.(His83Tyr) VAF: 65,1%

PRDM1 (NM_001198.3): c.147G>A;p.(Trp49*) VAF: 69,8% (mutation associated with DLBCL)

BTG1 (NM_001731.2): c.3G>T; p.(Met1?): VAF 29,3%

*: performed at Pathology Lab Spedali Civili di Brescia,
Luisa Lorenzi MD

Final diagnosis

Large B cell lymphoma, cyclinD1-positive, non-GCB type

Cyclin D1 rearranged diffuse large B-cell lymphoma—an evolving concept

K. S. Kurz¹, A. Zamo², C. Drewes³, E. Madej⁴, C. Laurent⁵, B. Burroni⁶, M. Donzel⁷, L. Xerri⁸, L. Mescam⁸, L. Plank⁹, L. M. R. Gjerdrum^{10,11}, J. Geyer¹², J. Richter¹³, I. Oshlies¹³, W. Klapper¹³, S. Gramlich², J. Doll², S. Roth², K. Maurus², A. M. Staiger^{1,14}, R. Siebert³, M-Q. Du¹⁵, A. Rosenwald², G. Ott^{1,20} and H. Horn^{1,14}

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K.S. Kurtz et al Leukemia 2025, 39:2988-2996

FISH-BAP: CCND1: 15

- MYC: 5 (1+Bcl2, 1+Bcl6)
- Bcl2: 2 (1+myc, 1+Bcl6)
- Bcl6: 4 (1+myc, 1+ Bcl2)

15 cases CCND1-R DLBCL

- 4 f
- 41-83 yrs
- 8 extranodal
- MCL-related Immunostains:
- CD5+: 3
- SOX11+: none
- CyclinD1+: 15

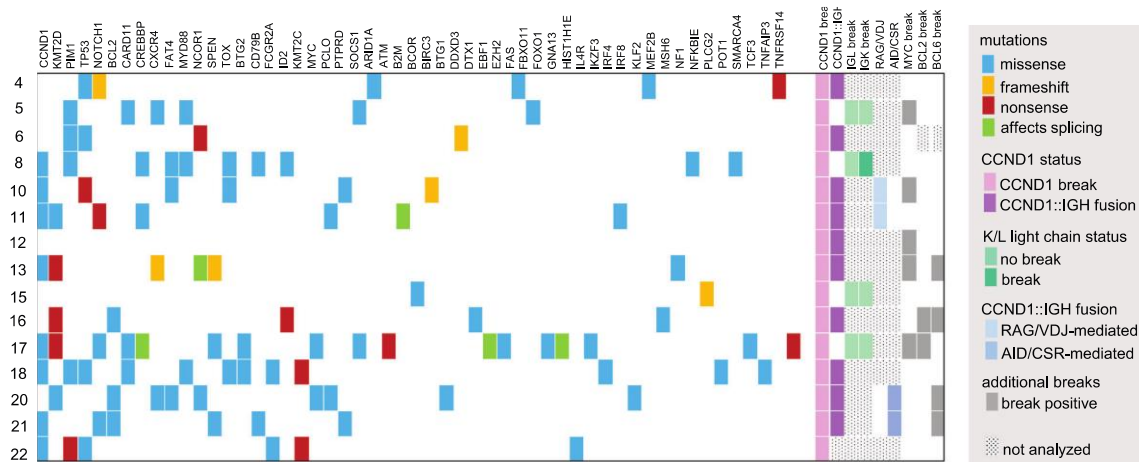


Fig. 2 Molecular profile of CCND1-R DLBCL. All called non-synonymous and synonymous mutations are colour-coded and shown for sample per line, ranked by cohort frequency. In addition, CCND1 translocation status, as well as IGH::CCND1 fusion, K/L light chain status, driver mechanisms of IGH::CCND1 fusion and additional breaks (MYC, BCL2 and BCL6) are indicated.

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K.S. Kurtz et al *Leukemia* 2025, 39:2988-2996

CyclinD1 immunostaining (>10% cells) in 653 DLBCL-PBL

- 15/653 (2,3%) DLBCL

- 2/55 (3,6%) PBL

FISH-BAP in 10 cases with CyclinD1 expression >20% cells:
no riarrangement

Clinical characteristics and outcomes of primary orbital lymphoma

Kenny Y. Wang et al. Eur J Ophthalmology 2025; 35:1776-1785

- 126 biopsy confirmed cases of primary orbital lymphoma
- 81 female, 110 white
- Age: 62,7+/- 13.9
- 26 bilateral

Most frequent types

- **MALT 76 (60,3%)**
- **DLBCL 18 (14,3%)**
- **FL 12 (9,5%)**

- Bone marrow biopsy: negative for lymphoma
- Cerebrospinal fluid: negative for lymphoma

Follow-up (2 months)*

- Therapy: R-CHOP
- After 3 cycles patient feels well with almost complete regression of the orbit lesion

*Hematologist Giambattista Bertani, MD, ASST-Garda

grazie

Con il contributo di

Luisa Lorenzi

Piera Balzarini

Mattia Facchetti

Anatomia Patologica Spedali Civili di Brescia