Case of melanoma and lymphoproliferative disorder

XXXIV Diada Internacional de la societat Catalana d´Hematologia i Hemoterapia

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Dr Estella Matutes

73 year old man presented with a four month history of a lump in the left thight; no B symptoms

Previous history: non metastatic localised malignant melanoma treated with surgery 22 years earlier

Examination: mass on the tight of 5x3 cm in size and mutiple hard nodes in the left inguinal region

A tru-cut biopsy of the lump showed black core of tissue whilst multiple biopsies of the inguinal nodes were colourless. Both showed infiltration by melanoma (S100+, melan A+)

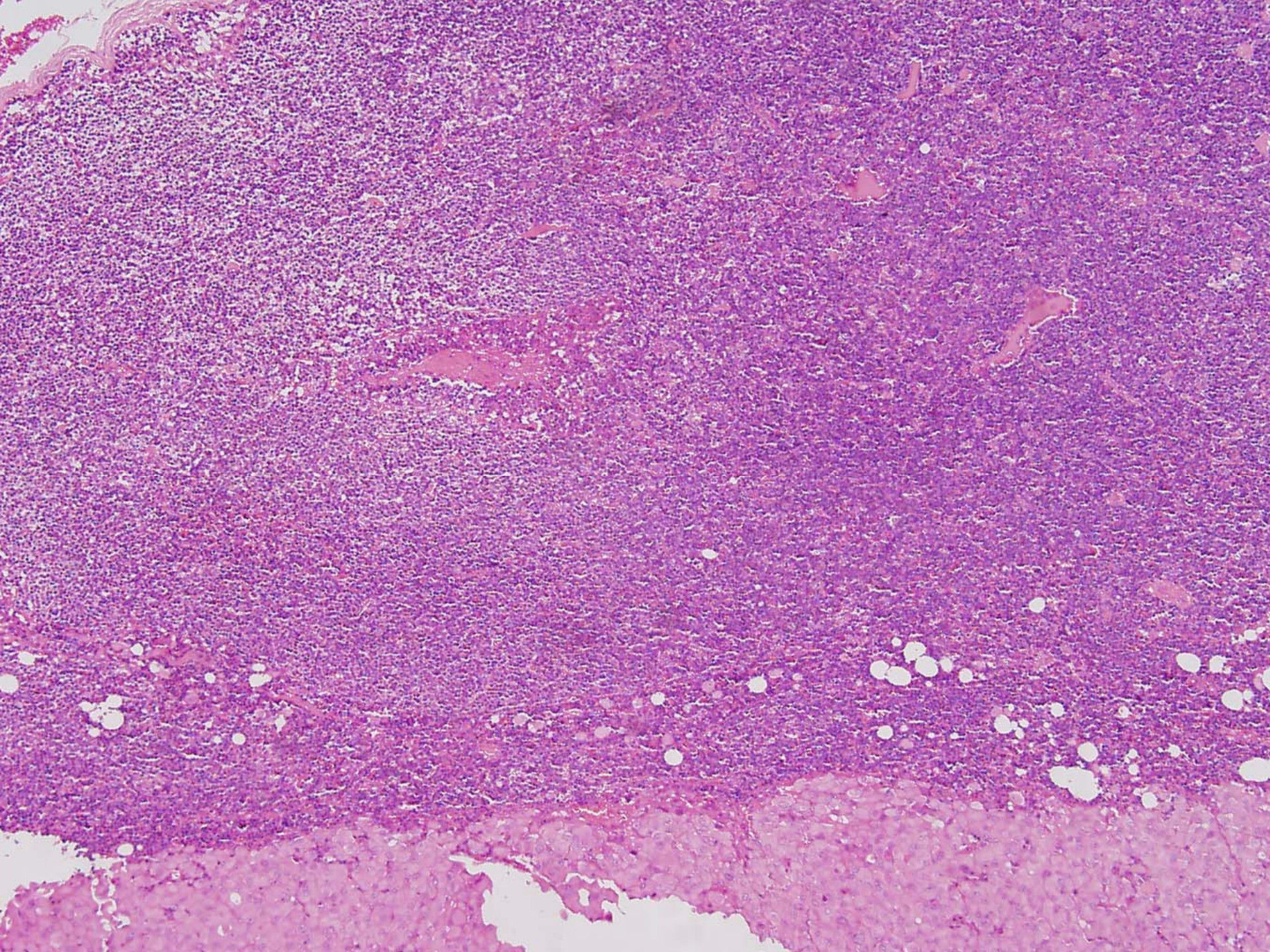
Staging CTScan: lymphadenopathy in the left groin (2.2 cm) and in the left pelvis (3.7 cm). No other organomegly

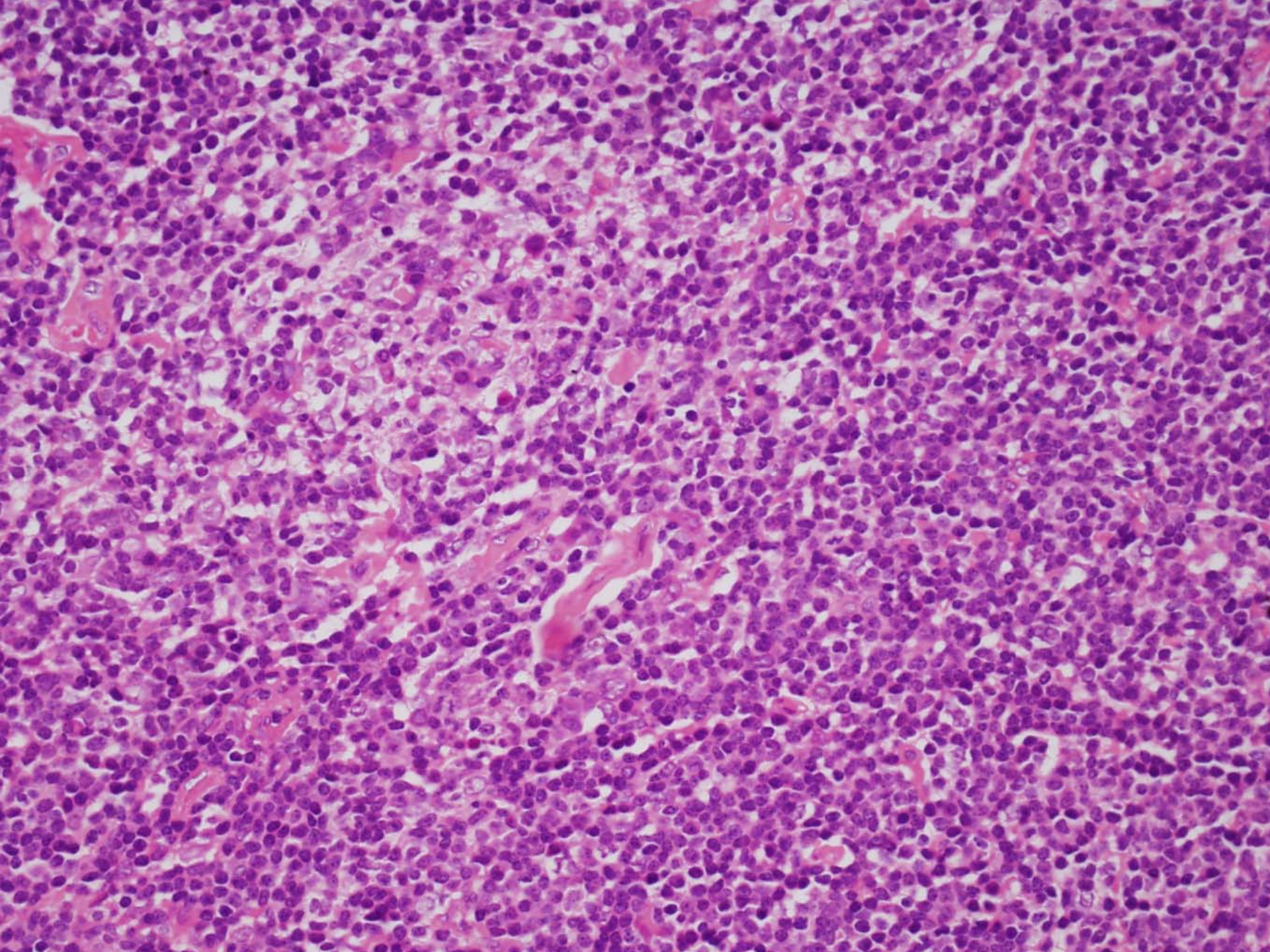
Diagnosis: melanoma with local node invasion

Surgery: complete excision of the mass and dissection of the inguinal and pelvic nodes

Lymph node histology: metastatic melanoma with a background proliferation of lymphocytes of uncertain nature

Further studies were carried out





FBC:

Hb: 15.7 g/dl, platelets: 185x10^9/l, WBC: 10.7x10^9/ l with 4.2x10^9/l

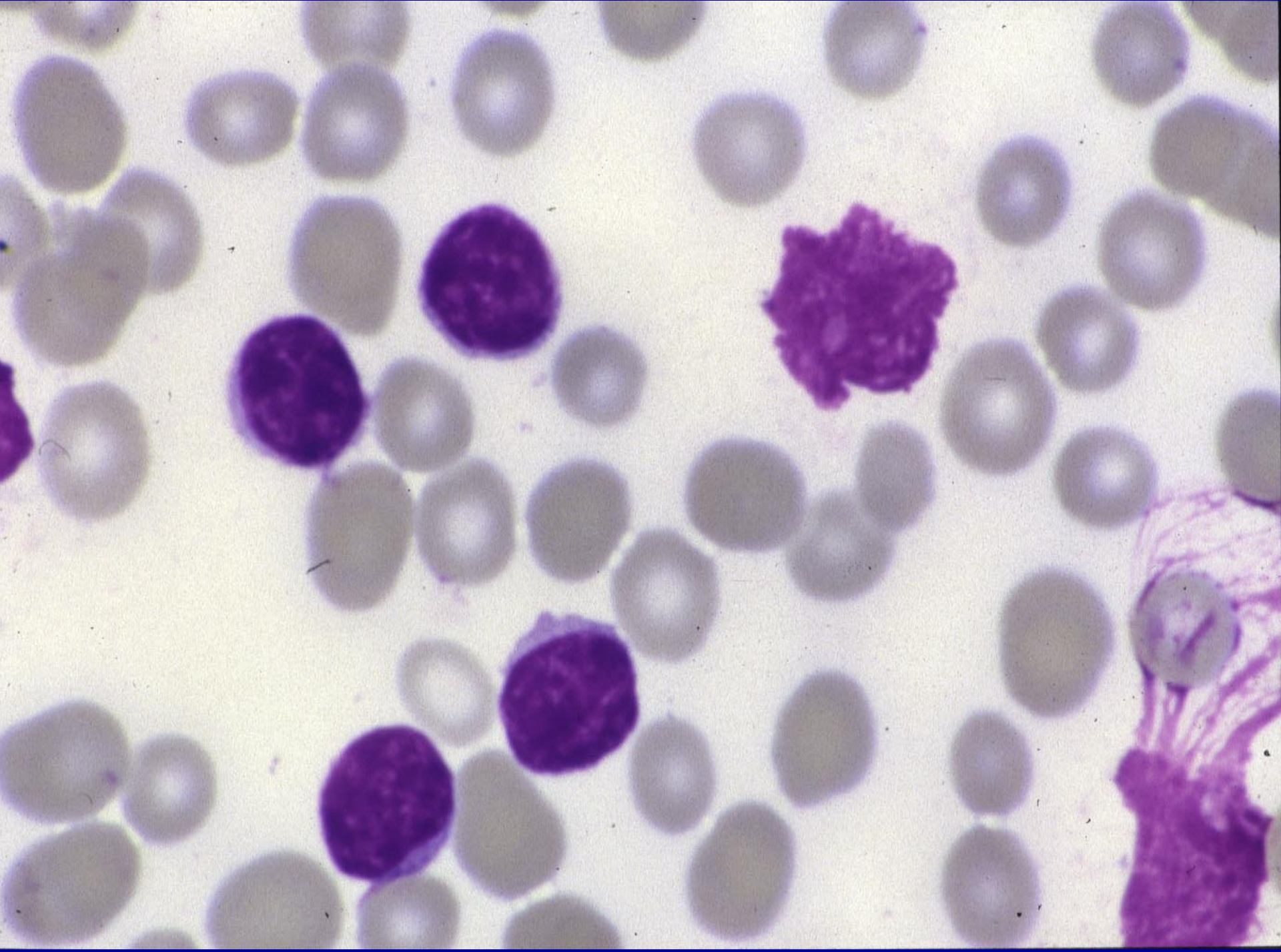
Normal liver and renal biochemistry, normal LDH, serum Ig and Beta-2 microglobulin

Bone marrow aspirate and trephine: mild infiltration by small lymphocytes with good residual haemopoiesis

Review of the cell morphology : small lymphocytes and smudge cells

Inmunophenotype: CD5+ CD23+ FMC7+ and weak SmIg and CD79b. CLL score 4/5

Diagnosis: CLL



At this point we had a diagnosis of melanoma (completely excised by surgery) and stage A CLL

Prognostic markers were carried out

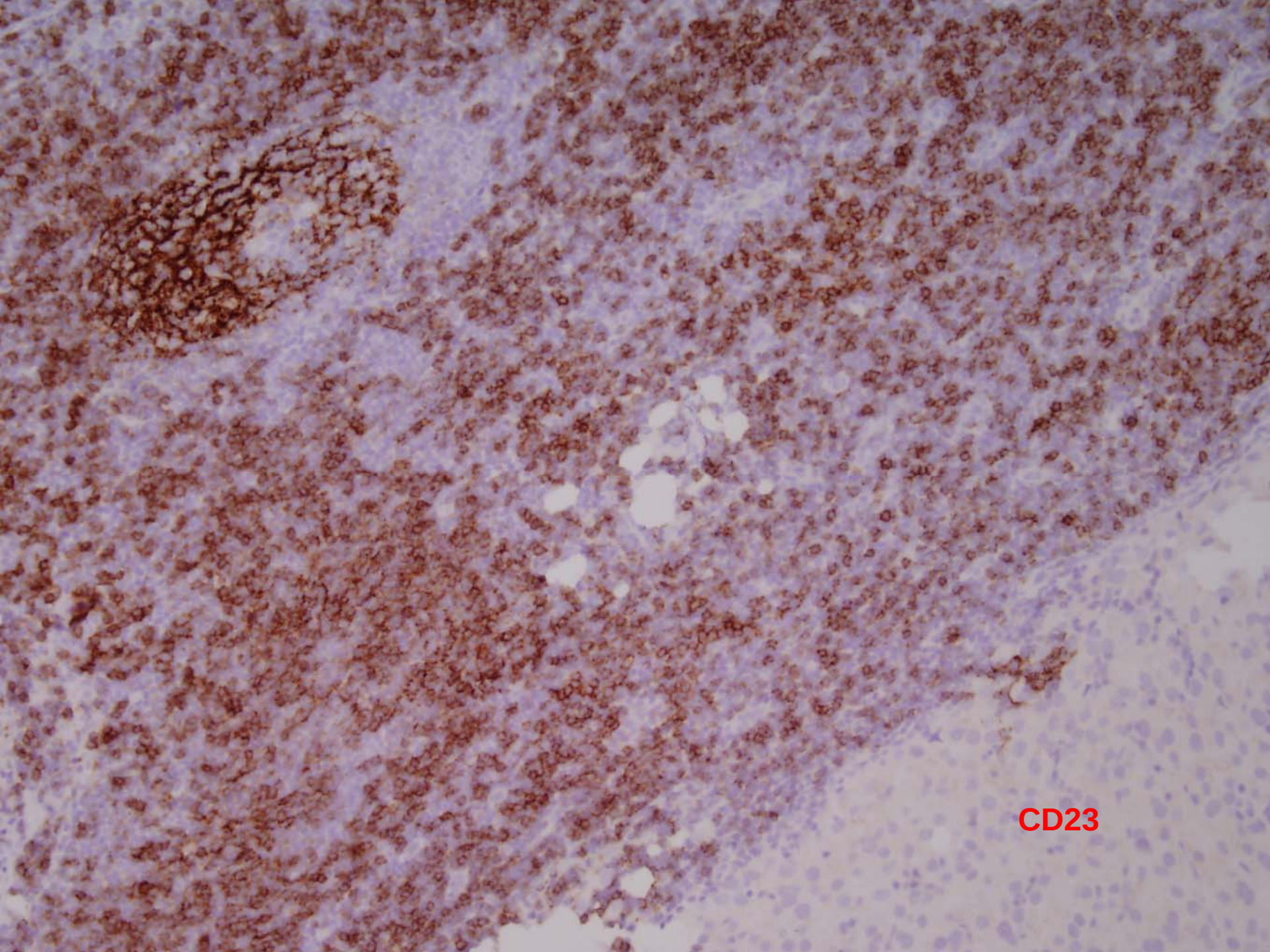
CD38 and ZAP-70 were negative

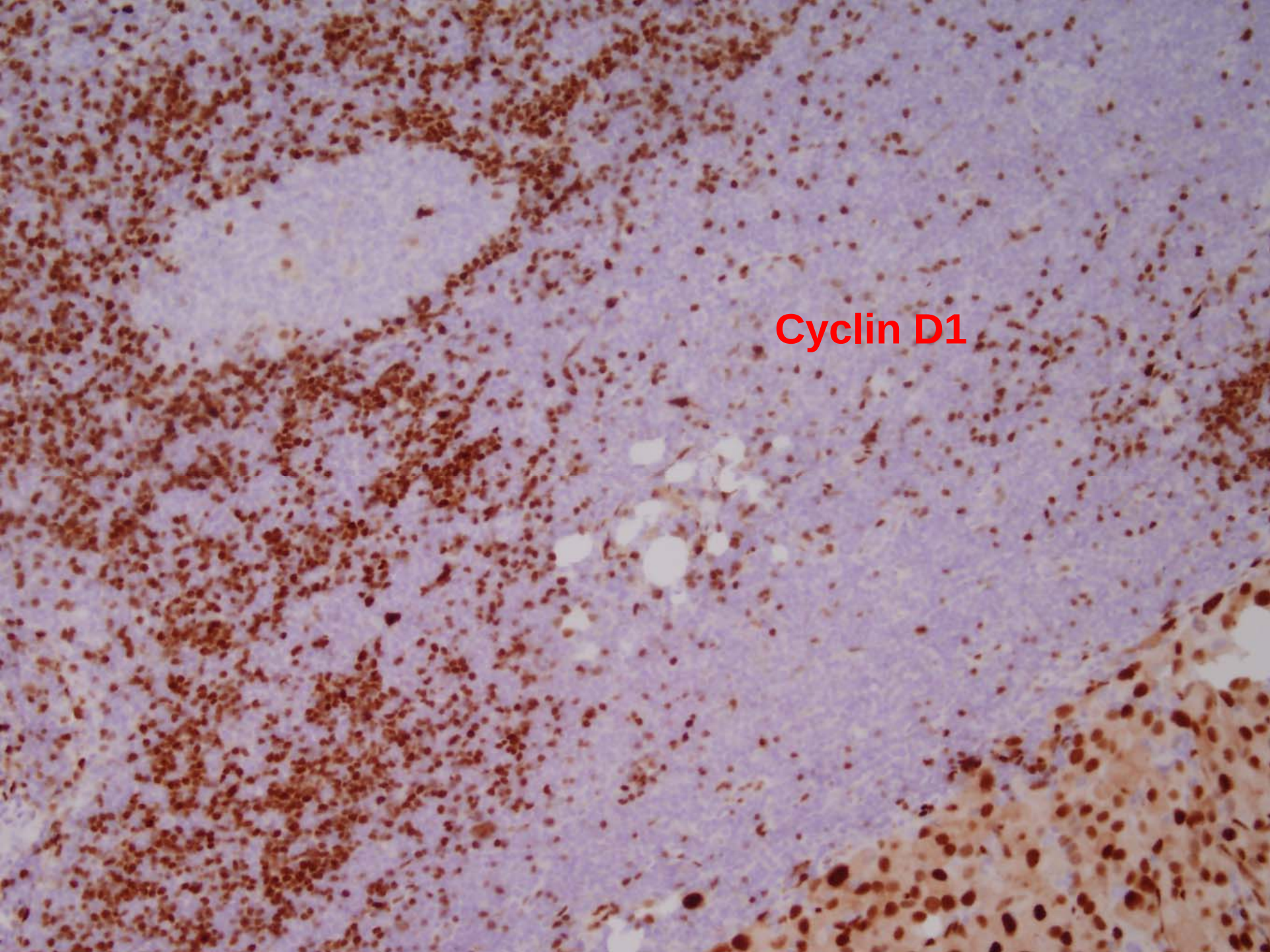
IgHV was mutated

FISH did not show del11q, del17p or trisomy 12

Diagnosis: CLL with favourable prognostic factors

Further review of the node biopsy however showed….


CD23

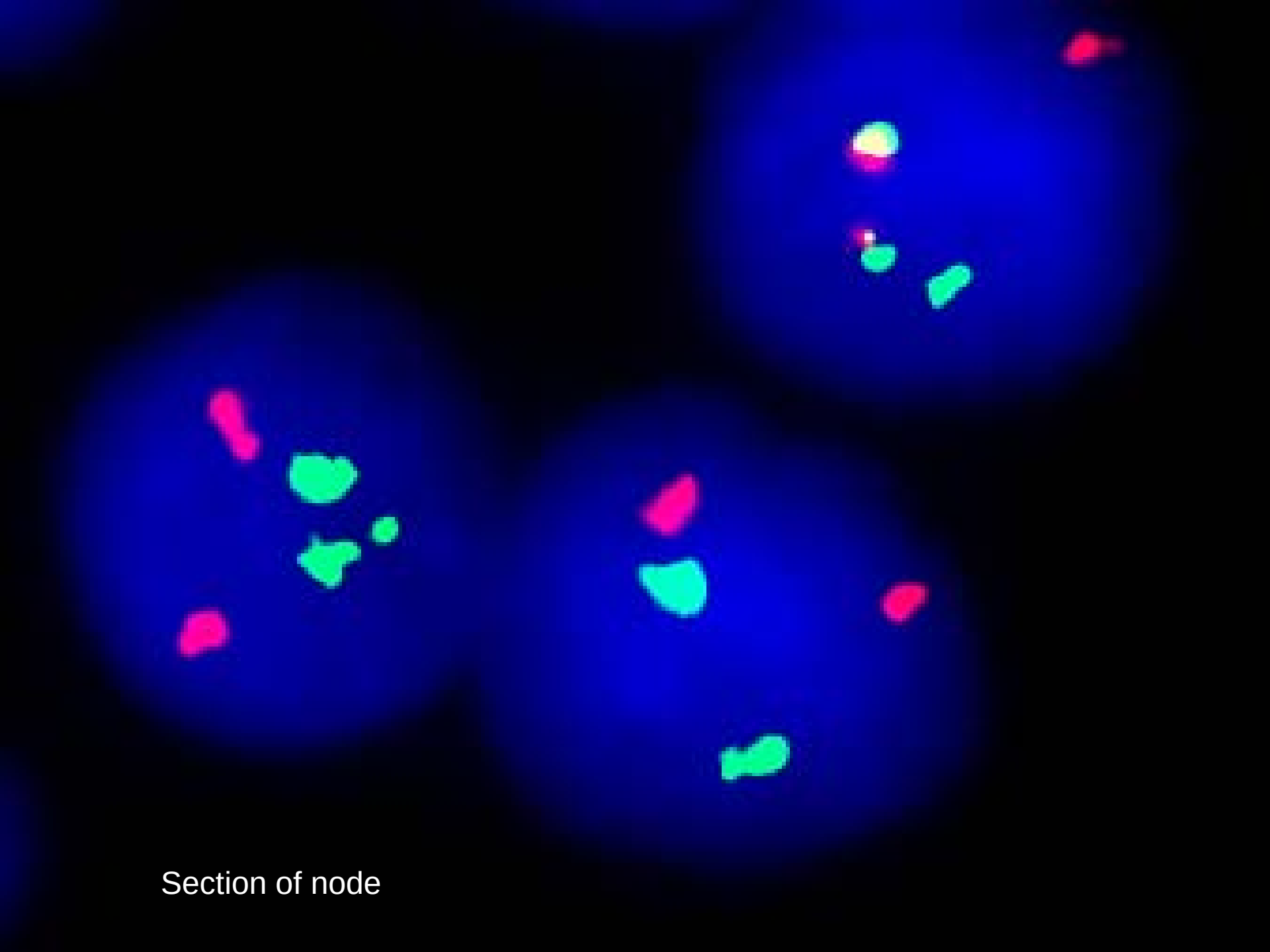

Cyclin D1

Not all the lymphocytes expressed CD23

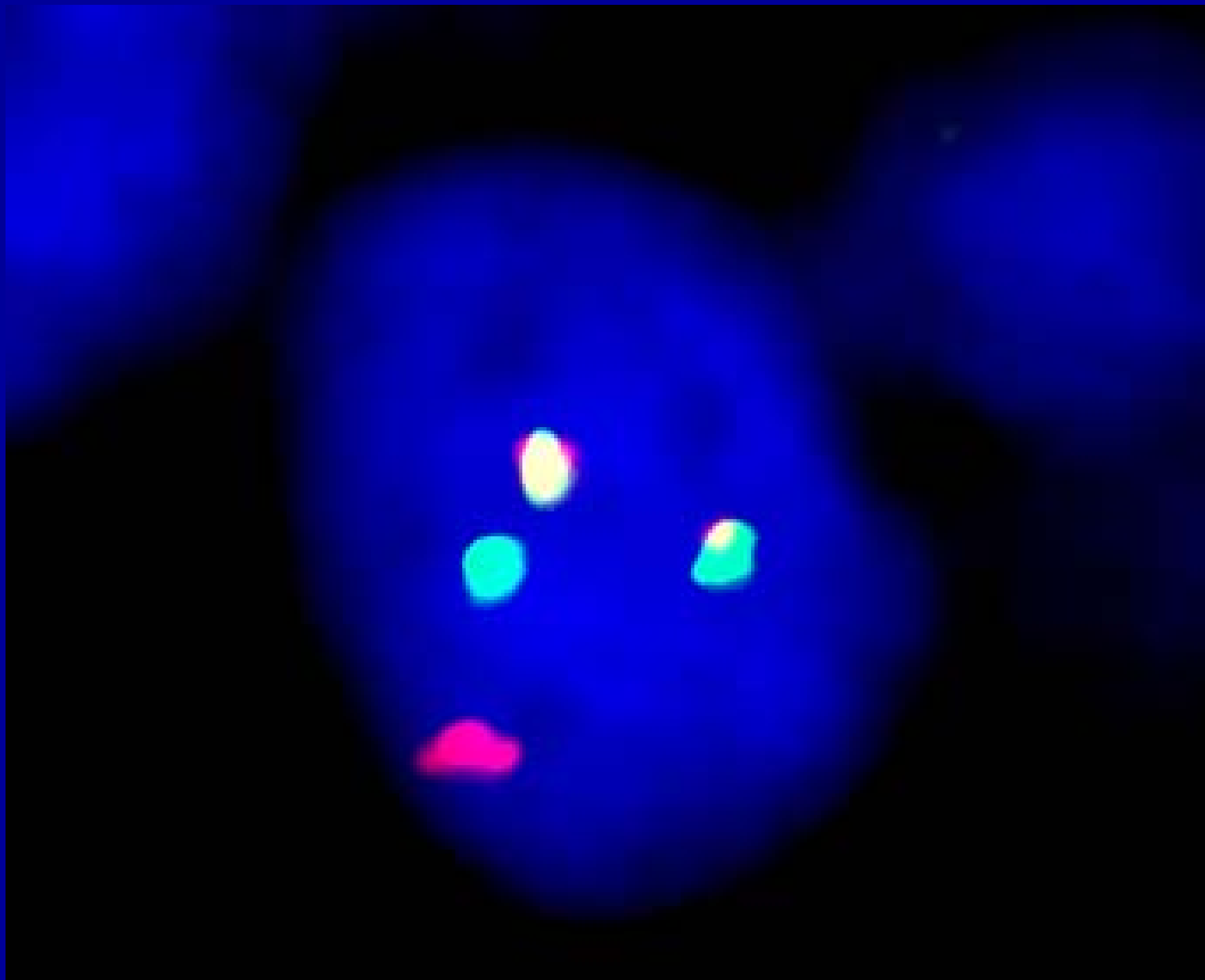
A proportion of lymphocytes, like the melanoma cells, had cyclin D1 expression

Is anything else in addition to CLL and melanoma?

FISH analysis for the t(11;14) was carried in the lymph node tissue sections and in bone marrow and peripheral blood lymphocytes



Section of node



Integrated report

Morphology (blood): small lymphocytes with clumped chromatin; smudge cells. Minor bone marrow infiltration by small lymphocytes

Histology of lymph node: metastatic melanoma (S100+, cyclin D1+) plus a dual lymphoid infiltrate by small cells expressing CD5 and CD23 (one component) and CD5, cyclin D1 but not CD23 (second component)

Immunophenotype (FC) in blood and bone marrow: all clonal B lymphocytes co-express CD5 and CD23 with a phenotypic score typical of CLL (score 4/5). Cells are CD38 and ZAP-70 negative

IgHV mutational anlysis : mutated (<98% homology to the germ line

FISH: No evidence of +12, del11q23, del17p or t(11;14) in the bm or blood. The t(11;14) is detected in the lymph node

Integrated report

Diagnosis:

1- Melanoma with local lymph node spread

2- CLL, stage A with favourable prognostic factors

3-Mantle-cell lymphoma (incipient or “in situ”) stage IA

Discussion I

This is a patient with three malignancies detected in the same tissue

Synchronous cancers are uncommon but co-existence of melanoma and CLPD is well recognised

MCL and CLL have been rarely reported in the same patient and not involving the same tissue

However, co-existence of the three tumours in the same patiens and in the same tissue has not been described

Discussion II

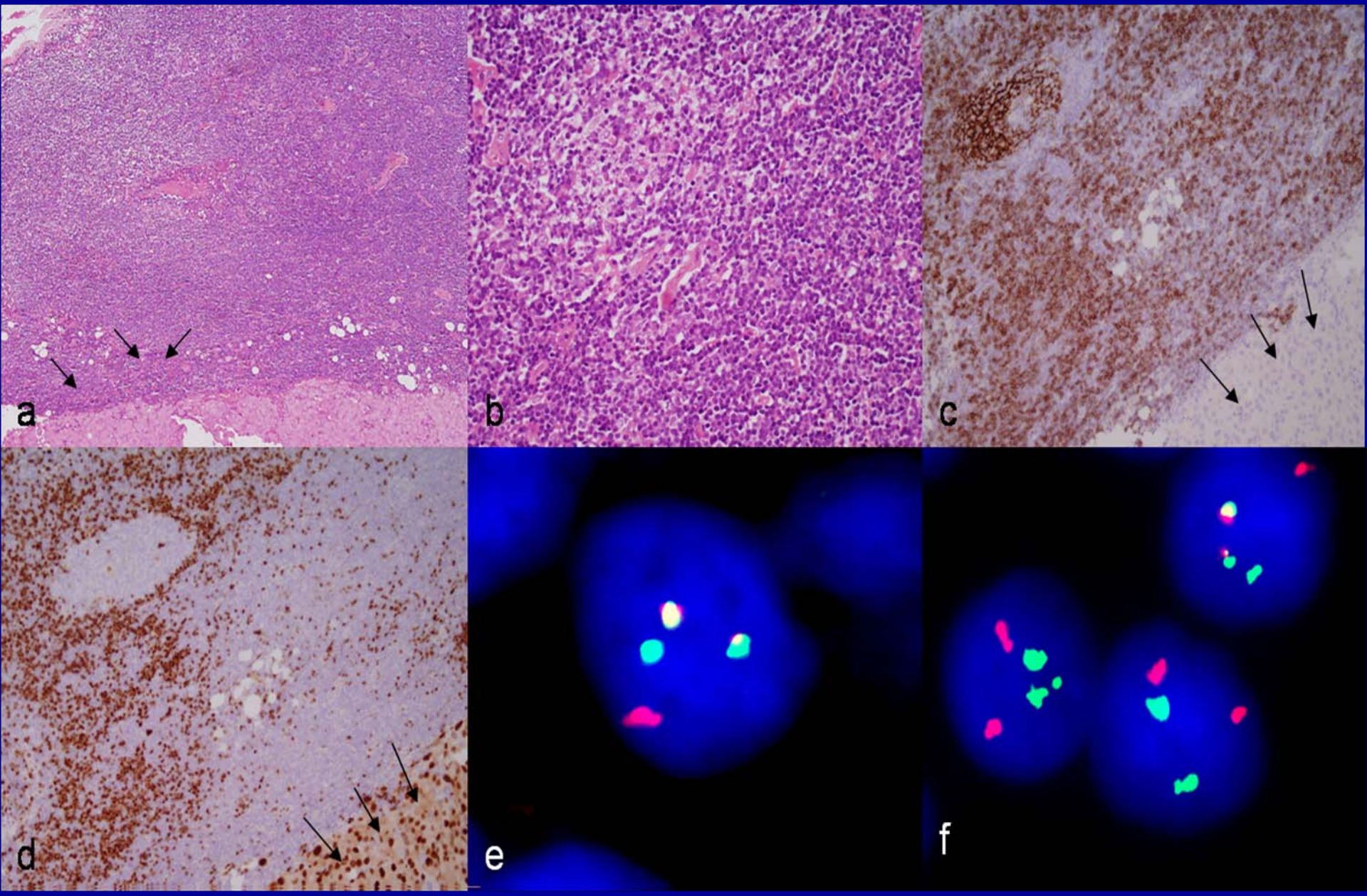
There is a higher incidence of second cancers in CLL and particularly skin cancers. The risk of melanoma in CLL is 2.79-3.18 higher than the general population

On the other hand, there is a risk of second malignancies in melanoma patients being lymphomas 16-fold higher than in the general population

Explanations: Immunesuppression in melanoma
Hereditary susceptibility (*p16* gene)
Merely coincidence

The patient is asymptomatic 2 years beyond the diagnosis without intervention

Management should be tailored on an individual basis and treatment of melanoma if progression occurs overrides priority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