

### INTRODUCTION

The present report demonstrates the diagnosis of Waldenstrom Macroglobulinemia (WM) in a patient followed in a public hematology service in Pernambuco – Brazil.

### MATERIALS AND METHODS

The information was obtained from the medical records and clinical follow-up of the patient at the Oncology Center of the University of Pernambuco, in Recife – Brazil.

### RESULTS

J.N.F.S. 51 years old, male, was referred with a history of persistent fever, weight loss, night sweats, fatigue for the past 7 months, associated to generalized lymphadenopathy, hepatosplenomegaly, scotomas, tinnitus and dizziness. The fundoscopy showed retinal hemorrhage and retinal detachment.

Laboratory exams showed normochromic normocytic anemia, monocytosis (2280), thrombosis (494000), enlarged activated partial thromboplastin time (aPTT) (1.7), increased RNI (1.85) and creatinine (1.95).

Protein electrophoresis showed monoclonal peak (30.7% - 3.13 g/dl) and immunofixation of proteins with IgM/lambda standard. Inguinal lymph node biopsy revealed a predominance of small lymphocytes and the presence of some dispersed plasmacytoid cells.

Bone marrow biopsies revealed an intense increase in lymphoplasmocytic series with infiltrate and immunohistochemistry with CD20 in multiple lymphocytes.

WM is a lymphoproliferative disease of B lymphocytes, represented by lymphoplasmocytic lymphoma in the bone marrow and neoplastic monoclonal expansion of IgM/kappa immunoglobulins. It is a rare condition, therefore difficult to diagnose in the public healthcare system, since requires specific exams, being considered then an exclusion diagnosis.

The patient had B symptoms, organomegaly and lymphadenopathy, related to lymphoplasmocytoid infiltrates. Ophthalmological findings and neurological symptoms are explained by blood hyperviscosity. Diagnosis includes 3 criteria: bone marrow biopsy with 10% or more of infiltration of small lymphocytes, monoclonal IgM gammopathy, immunohistochemical test with the presence of IgM + positive markers. The findings were consistent with the diagnosis, which enabled the patient to start chemotherapy.

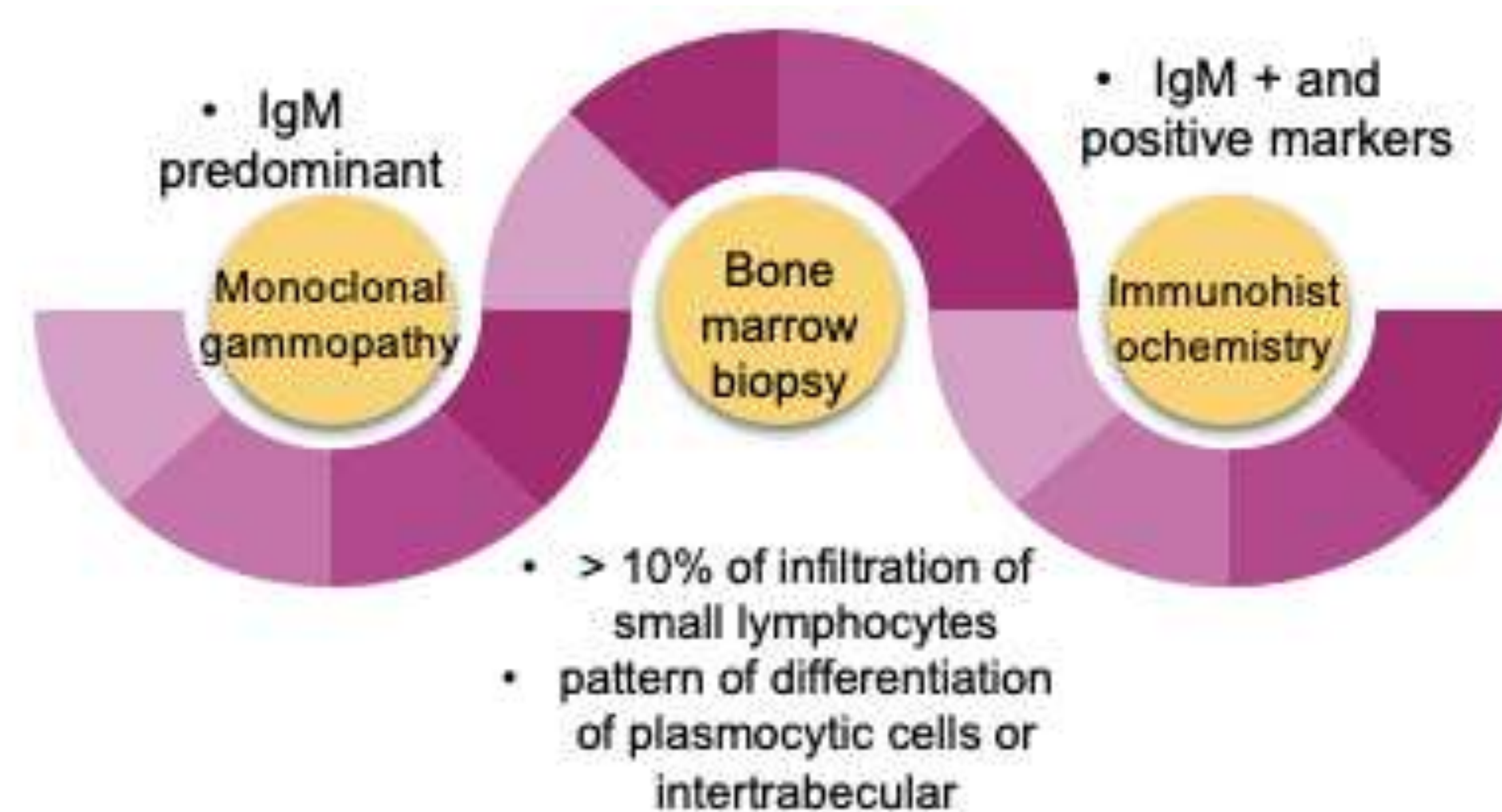


Image 3.: Diagnostic criteria for Waldenstrom Macroglobulinemia

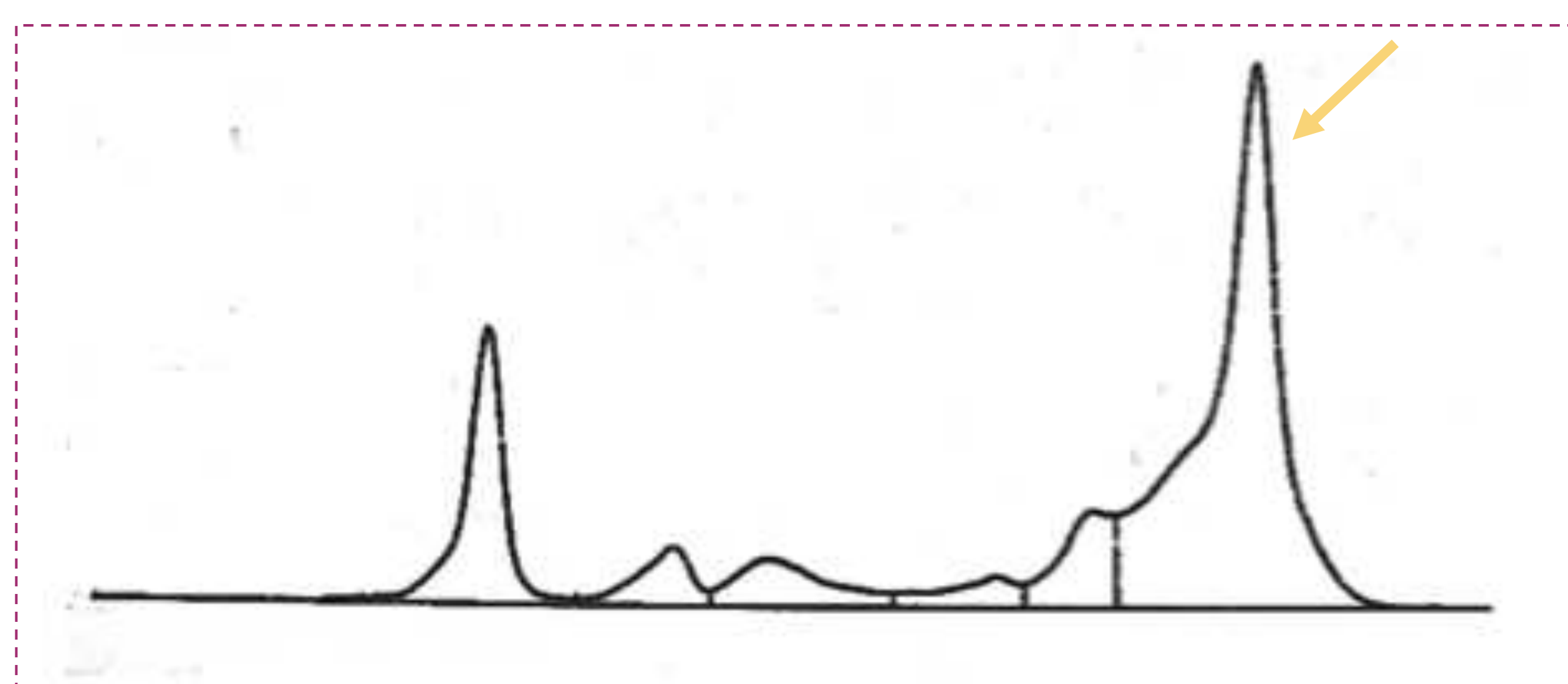


Image 1.: Protein electrophoresis showing a monoclonal peak 30.7% - 3.13 g/dl

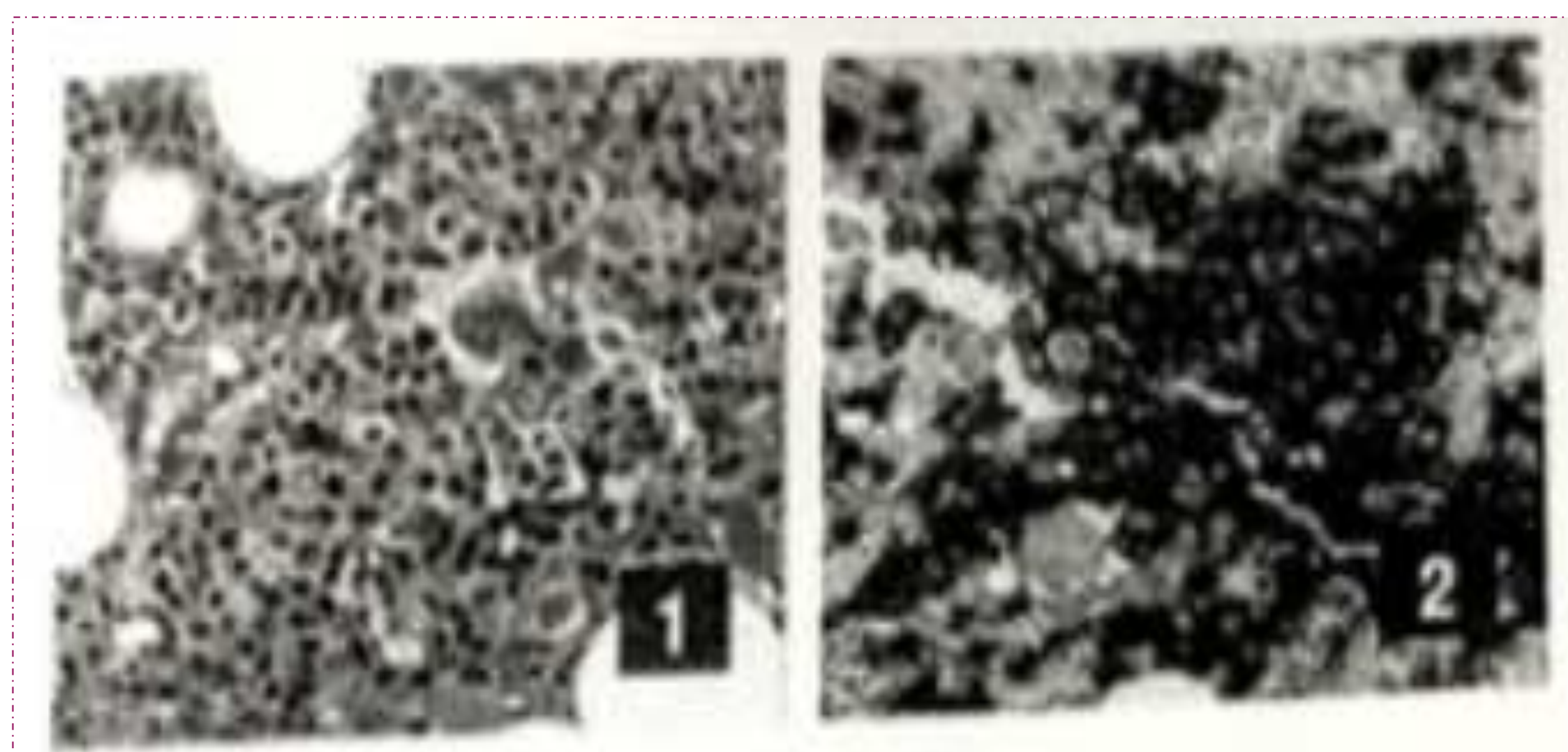


Image 2.: Immunohistochemical exam revealing increased cellularity for age (about 80%) with a great number of small B lymphocytes (about 50% of cellularity), CD20 in multiple lymphocytes, with interstitial and paratrabeular infiltrative pattern and various Kappa-lambda plasmocytes (1:4)

### CONCLUSION

The diagnosis of WM represents a challenge for the public healthcare system in Brazil, with lack of epidemiologic data.

We present a case that showed the success of the investigation, even with its limitations.

### REFERENCES

1. Waldenström's macroglobulinaemia: ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up†  
Kastritis, E. et al.  
Annals of Oncology, Volume 29, iv41 - iv50
2. LEBLOND, V. et al. Treatment recommendations from the Eighth International Workshop on Waldenstroms Macroglobulinemia. Blood, [s.l.], v. 128, n. 10, p.1321-1328, 18 jul. 2016. American Society of Hematology
3. Epidemiology, pathogenesis, clinical manifestations, and diagnosis of Waldenström macroglobulinemia Post TW, ed. UpToDate. Waltham, MA: UpToDate Inc. <https://www.uptodate.com> (Accessed on March, 2020.)
4. CASTELLUCCI, Andrea et al. Waldenström's macroglobulinemia presenting with bilateral vestibular loss: a case report. Brazilian Journal Of Otorhinolaryngology, [s.l.], v. 81, n. 5, p.571-575, set. 2015. Elsevier BV.
5. COIMBRA, Susana et al. Waldenström's macroglobulinemia - a review. Revista da Associação Médica Brasileira, [s.l.], v. 60, n. 5, p.490-499, out. 2014. FapUNIFESP

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