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DIAGNOSED MULTIPLE MYELOMA IN A YOUNG WOMAN: A CASE REPORT

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ABSTRACT

Introduction: Multiple myeloma is a malignant plasma cell neoplasm, accounting for 1% of all cancers, is a disease of predominance in older adults, with a median age at diagnosis between 65–74 years and only 2% of patients are under 40 years of age. with this case we provide unusual scientific evidence due to epidemiological data of the age of presentation of the pathology, being very interesting for the medical literature as well as other characteristics. **Case report**: 38-year-old woman, with symptoms of 6 months of evolution that began with bilateral perimalleolar edema, subsequent progressive increase in symptoms until they manifested in genitalia, abdomen and face, attended a specialized evaluation with initial creatinine: 0.75 mg / dl and subsequent control of 4.8 mg / dl, with complementary results that report protein electrophoresis with monoclonal peak in gamma globulins, benze jones proteins: positive, bone marrow with presence of plasma cells in 30% and positive lambda chains, it is diagnosed multiple myeloma, initiating management with cyclophosphamide, bortezomib, and dexamethasone. **Conclusion**: In this disease survival time may improve depending on the opportunity for early diagnosis and intervention, in young patients and women it is rare to make this type of finding, so it is interesting to make it known to the scientific community, to encourage the search in these population groups.

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INTRODUCTION

Multiple myeloma is a hematological neoplasm, characterized by the presence of B lymphoid cells, capable of synthesizing immunoglobulins (monoclonal plasma cells) (1), manifested clinically by hypercalcemia, kidney failure, anemia, bone lesions (acronym CRAB); its diagnosis is confirmed by protein electrophoresis and bone marrow biopsy, showing monoclonal proteins of light or heavy chain (M protein), and plasmoblastic infiltration respectively. Multiple myeloma is a relatively rare cancer that accounts for approximately 1 to 2% of all cancers and slightly more than 17% of hematologic malignancies (2). It is twice as common in African-American individuals than in other racial or ethnic groups. ethnic (3), it is also slightly more common in men than women (approximately 1.4: 1).

In Colombia, a study found that 3% of the cases were diagnosed in those under 45 years of age, 43% of the patients in people between 46 and 60 years of age; and 54% in ages older than 60 years, another important data on the time elapsed between the first symptoms and the visit to the general practitioner showed that 73% consulted their doctor in less than three months, 46% of the patients were referred to hematology in a maximum time of 1 month; 24%, between 2 and 4 months; 24%, between 5 months and a year; and 6%, more than 1 year (4).

CASE REPORT

38-year-old female patient, originally from Sampúes, Sucre (Colombia), consulted for progressive and deteriorating edematous syndrome, until she presented ascites grade 2, associated with

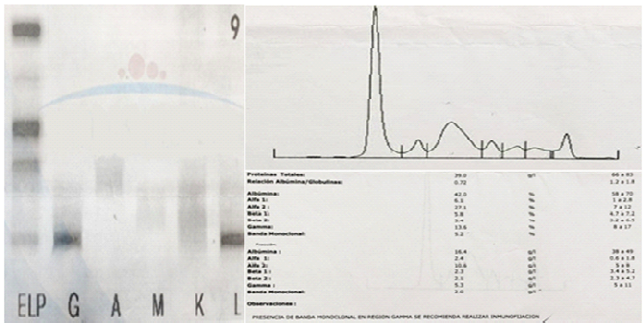

Figure 1. Electrophoresis of proteins with presence of monoclonal band in the GAMMA region

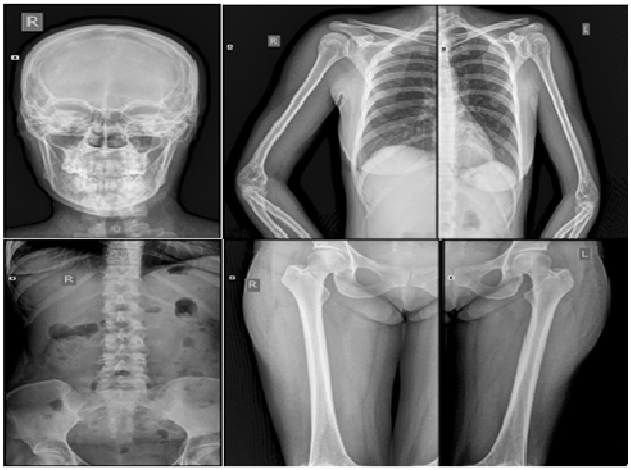

Figure 2. X-rays of flat and long bones, in which no osteolytic or deforming lesions are seen

Board 1. Screening of requested laboratories

Hemoglobin	12.5 gr/dl	IgG A	3.94 mg%
Hematocrit	38%	IgG g	946 mg%
Leukocytes	13100/L	IgG M	317 mg%
Neutrophils	55%	Ferritine	107 ng / ml
Platelets	485.000/uL	LDH	672 U / L
Albumin	1.08 Gr/dl	Anti DNA	Non reactive
Uric acid	7.76 mg/dl	Ancas C-P	Negative
Creatinine	4.8 mg/dl	Anti Sm – Ro - La	Negative
Total cholesterol	257 mg/dl	TSH	16uU / ml
Triglycerides	95 mg/dl	Free T4	0.2ng/dl
Serum calcium	9.16 mg/dl	HIV - AgsHB - VDRL	Non reactive
Urine Prot. 24 Hrs	2464 mg/l	Ra Test	Negative
TT Echocardiogram	Normal/ FEV:69%	Bence jones Protein	Positive

asthenia, adynamia, oliguria, foamy urine, has a history of hypothyroidism of Recent diagnosis and management with thyroid hormones, brings with it previous laboratory studies with creatinine 0.75 mg, urinalysis with proteins (+++), echocardiogram with ejection fraction: 69%, heart chambers of normal size and characteristics, with diastolic dysfunction , he was admitted to the hospitalization service for studies and management of edema with loop diuretics, it was decided to rule out immunological diseases due to his age, finding a profile of normal immunological laboratories, drawing attention to an elevation of nitrogen containing creatinine up to 4.8 mg / dl , bun: 33 mg / dl, proteinuria in 24 hours: 2464 mg, LDH: 672, albumin: 1.08 gr / dl, beta2 microglobulins: 10.79 mg / L, calcium ionic: 1.25 nmol / L (Table 1), in this context serum protein electrophoresis was requested, finding a monoclonal peak in the gamma region (Figure 1), radiographs of long bones, skull with normal radiology reports, without visible osteolytic lesions by this technique (figure 2), benze jones proteins: positive, bone marrow studies finding 30% clonal plasma cells in the biopsy, with

Board 2. Bone marrow biopsy, immunohistochemistry, flow cytometry and myelogram

IMMUNOHISTOCHEMISTRY:
Immunohistochemical study is performed (TDT, MPO, HLA-DR, CD34, LIGHT CHAINS
KAPPA, LAMBDA LIGHT CHAINS, CD3, CD20, CD38 and CD138) which shows abundant
plasma cells which were positive for CD38 and CD138 and corresponding
approximately 30% of the cell population. Monoclonality is recognized for
LAMBDA light chains with a 7/1 ratio.
FLOW CYTOMETRY
Sample showing 9.6% of mature T lymphoid population and 2.9% of population
polyclonal mature B lymphoid. 3.0% of monoclonal plasma cells with expression of
CD38, CD 138, CD 19 (-), CD 45 (- a weak) and lambda cy light chains, 0.3% express CD 56.
It is found 68.2% of mature myeloid population and 3.7% of monocytic population.
MYELOGRAM: Count to 300 cells
Blastos_____Promyelocytes 0.3% Neutrophils and precursors 51.6%
Lymphocytes 13.6% Monocytes 1% Eosinophils and precursors 1.6%
Plasmacytes 20% Basophils ____ Mast cells_____ Erythroblasts 12%
MEGACARIOCYTIC SERIES: Discreet increase
ERYTHROCYTIC SERIES: Present
MYELOID SERIES: Mature
LYMPHOPLASMOTARY SERIES: Mature. 20% plasma cells.
OTHER SERIES: Occasional histiocytes

immunophenotype CD 38 +, CD 138 +, lambda + light chains, with monoclonality of these 7/1 , and myelogram with 20% plasma cells (Table 2), a renal biopsy was performed with a pattern of nodular glomerulonephritis, In the nodular areas the congo red staining was positive, lambda markers: positive by immunohistochemistry, PAS staining: negative, amyloid A and immunoglobulins: negative, with all these results, MULTIPLE MYELOMA of lambda light chains, ISS III, was considered and management was started with cybord scheme, bortezomib 2.21 mg iv day (1 - 8 - 15 - 22), cyclophosphamide 500 mg iv day (1 - 8 - 15 - 22), dexamethasone 32 mg iv day (1 - 8 - 15 - 22), ondasetron 32 mg iv day (1 - 8 - 15 - 22), ibandronic acid 6 mg iv day 1, with good initial tolerance, on the other hand, management of hypothyroidism was adjusted with levothyroxine 75 mcg daily and edema with furosemide, achieving compensation and a decrease in Nitrogen containing creatinine 3.1 mg, without the need for dialysis, the patient continues in outpatient nephrology and hematology controls, with good tolerance to medical management.

DISCUSSION

The clinical presentation of multiple myeloma (MM) can be diverse in a series of 1027 patients, the most frequent characteristics were anemia: 73%, bone pain: 58%, elevated creatinine: 48%, Generalized fatigue / weakness: 32%, Hypercalcemia: 28%, Weight loss: 24%, it is striking that in our case the 2 most frequent manifestations are not present, but if there is organic compromise due to renal failure with creatinine greater than 2 mg / dl, only present in 20% Of the newly diagnosed cases of MM (5), nephropathy due to light chain casts in this case lambda detected by renal biopsy is the cause of renal failure.
The diagnostic of MM is complemented by the presence of clonal plasma cells greater than 10% in bone marrow studies, in addition to the monoclonal peaks in serum protein electrophoresis, urinary benzene proteins and kidney organ damage, they are sufficient to diagnose MM (6), lupus, amyloidosis, monoclonal gammopathy of uncertain significance, rheumatoid arthritis were ruled out. In a study in Colombia with 54 newly diagnosed patients, an advanced stage of the disease was found at the time of diagnosis, with a high tumor burden and a higher incidence in young patients with greater kidney involvement than in previously published similar studies (7). For the treatment of MM in young people, the objective is to achieve remission of the disease, with the least possible toxicity, including multiple regimens that vary between bortezomib, cyclophosphamide, thalidomide, lenalidomide, vincristine, doxorubicin, among others,

obtaining higher remission rates. 80%, with complete or almost complete responses in 6-38%, without damaging the progenitor cells (8); In this case and for this patient, a Cybord cyclophosphamide, bortezomib and dexamethasone scheme was used which, in light of the evidence, showed a rapid and profound response, with a tolerable and manageable toxicity (9).

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