

pacientes com MM de três instituições no Rio de Janeiro, além de descrever os aspectos clínicos, sociodemográficos, terapêuticos e desfechos e de avaliar a aplicabilidade de instrumentos de medida socioeconômica. **Material e métodos:** Trata-se de coleta retrospectiva de dados dos pacientes com diagnóstico de MM entre janeiro/2015 e fevereiro/2023, nos serviços de Hematologia do Hospital Universitário Pedro Ernesto, do Hospital de Força Aérea do Galeão e do Instituto Oncologia D'Or, com aplicação do questionário de estratificação em classes sociais CCEB-2021 aos pacientes ou aos familiares (em caso de óbito do paciente). Para avaliação socioeconômica, também foram coletadas informações sobre grau de escolaridade e estimada a renda *per capita* de acordo com o local de residência de cada indivíduo. **Resultados:** Foram incluídos 296 pacientes, sendo a maior parte composta por mulheres e com mediana de idade ao diagnóstico de 65,6 anos. A maioria tinha queixas relacionadas à lesão de órgão-alvo, pior performance status (PS) e estágio de Durie Salmon (DS) III. As medianas de tempo para diagnóstico e para início de tratamento foram de 4,7 meses e 24 dias, respectivamente. Dezoito pacientes faleceram antes do início da quimioterapia, e transplante autólogo de medula óssea foi realizado em 120 indivíduos. Houve 139 casos de óbito, e as principais causas foram doença e infecção. **Discussão:** Foi possível demonstrar a associação de classe social mais baixa, menor grau de escolaridade e/ou menor renda com maior tempo para o diagnóstico, estágio de DS avançado, pior PS, menores níveis de hemoglobina, cálcio mais elevado e mais sintomas ao diagnóstico. Além disso, também foi observado, nos pacientes com pior status socioeconômico, um menor uso de medicamentos mais modernos e eficazes, maior tempo para realização de transplante de medula, menos tratamento de manutenção pós-transplante e maiores taxas de mortalidade precoce, em até três meses após o diagnóstico. **Conclusão:** Estes achados confirmam uma expectativa subjetiva dos profissionais envolvidos no cuidado dos pacientes com MM, com dados reais da assistência no Brasil, e devem ser considerados na formulação de políticas de saúde para o diagnóstico precoce das neoplasias hematológicas e acesso mais amplo às terapias mais modernas, que certamente levarão a melhores desfechos terapêuticos.

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PROGNOSTIC IMPACT OF CYTOGENETIC ABNORMALITIES AND R2-ISS IN MULTIPLE MYELOMA

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Introduction: Cytogenetic abnormalities are crucial for risk stratification and therapeutic decisions in multiple myeloma (MM). The incorporation of 1q+ into the R2-ISS prognostic tool has revealed a new subgroup of very high-risk patients not previously identified by the R-ISS model. Advances in cytogenetic techniques, particularly fluorescence in situ hybridization

(FISH), have provided important insights into the clinical and biological behavior of MM. Despite the growing importance of these techniques, cytogenetic analysis is still not widely available in many countries. Our study aims to describe the experience of incorporating cytogenetic analysis and the R2-ISS classification in MM patients at a Brazilian private hospital. **Objective:** This study aims to describe the experience of incorporating cytogenetic analysis and the R2-ISS classification in MM patients from a Brazilian private hospital. **Methods:** This is an observational, retrospective, and descriptive study. Data were collected from patients between January 2022 and January 2024. Patients eligible for autologous stem-cell transplantation (autoSCT) were treated with the PERSEUS protocol (Dara-VRd), with 93% achieving responses superior to partial responses. Patients ineligible for autoSCT received the MAIA protocol (Dara-Rd). Complete risk stratification for R-ISS and R2-ISS, including FISH from a bone marrow sample, was required for all patients. **Results:** A total of 25 patients (16 eligible for autoSCT) were included. The average age was 63 years, with the most common type being IgG Kappa (52%). The median follow-up was 15 months (range: 12-70). Cytogenetic abnormalities were detectable by FISH in 13 out of 25 cases (52%). More than 90% of these findings were classified as high risk by the mSMART 3.0 model. In the transplant-eligible group, 7 out of 16 patients had at least one high-risk cytogenetic mutation, and in the ineligible group, 3 out of 9 patients had such mutations. The most common findings were +1q in 9 cases (36%) and del (13q) in 5 cases. Thirty percent of all cases had a prognostic classification shift when R2-ISS was compared to R-ISS, with most shifts occurring in the R-ISS III group. Of the 10 patients in this classification, 50% were up-staged to R2-ISS IV. The median overall survival (mOS) of all R-ISS III patients was 21 months (range: 2-75). With R2-ISS, the mOS was 36 months (range: 4-75) in R2-ISS III and 9 months (range: 2-19) in R2-ISS IV. The progression-free survival (PFS) for R-ISS III patients was 17 months (range: 1-60). The same population classified with R2-ISS had a PFS of 21 months (range: 8-60) in R2-ISS III and 5 months (range: 1-13) in R2-ISS IV. **Conclusions:** The incorporation of cytogenetic analysis and the R2-ISS classification in the treatment of MM patients provides a more precise stratification of high-risk patients, particularly revealing a subgroup at very high risk. The R2-ISS seem to be a simple prognostic staging system offering more accurate stratification of MM patients. However, prospective studies with larger cohorts and standardized methodologies for FISH are necessary to further validate these findings and optimize treatment strategies for MM patients.

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IMMUNOHISTOCHEMICAL PITFALLS IN AMYLOID SUBTYPING: INSIGHTS FROM A RETROSPECTIVE BRAZILIAN COHORT STUDY

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Background: Systemic amyloidosis is a potentially fatal disease caused by tissue amyloid deposition and organ dysfunction. Diagnosis is often delayed by nearly a year in low and middle-income countries. Although mass spectrometry (MS) is the gold standard for amyloid subtyping, its use is limited due to high costs and technical complexity. Immunohistochemistry (IHC) represents an alternative diagnostic method, but its diagnostic accuracy can vary significantly, particularly outside specialized laboratories with the use of commercial antibodies (AB). **Objectives:** To subtype amyloid by IHC and to compare it with MS, the gold standard method. **Methods:** In this retrospective, observational study, patients diagnosed with systemic amyloidosis from 2009 to 2018 at the HCFMUSP, a Brazilian public university hospital, were identified by database search and proactive review of biopsy records in the pathology archives. Stored biopsies were selected and included by availability to perform both IHC and MS. Amyloid tissue samples were analyzed by MS coupled with liquid chromatography following laser microdissection, thermochemical processing, and trypsin digestion. IHC panel comprised 4 commercial AB: anti-Kappa, -Lambda, -Transthyretin, -Serum amyloid A. IHC results were classified as positive (positive reaction against 1 antibody), negative (no positive reaction) or inconclusive (positive reaction against ≥ 2 AB of the panel). **Results:** From 138 patients identified with biopsy-proven systemic amyloidosis, 43 biopsies from 13 organs were included to perform both MS and IHC: 28% heart, 23% kidney, 9%, gastrointestinal tract, 7% subcutaneous fat, 7% lymph node, 5% bone marrow, 5% nerve, 5% muscle and 2% each liver, pleura, gingiva, salivary gland and tongue. Excluded biopsies were as follows: 38 insufficient for both MS and IHC, 17 external samples, 13 unavailable in the laboratory archives, 10 insufficient for MS, 9 with no remaining amyloid deposit in the stored block, and 8 insufficient for laser microdissection. The amyloid subtypes detected by MS were AL 68%, ATTR 19%, AA 10%, AFib 3%. MS results are still pending for 12 cases. IHC correctly subtyped amyloid in 10% of AL, 67% of ATTR and 67% of AA cases. Among AL patients, IHC was negative in 52%, inconclusive in 29% and positive for ATTR and AA in one case each. Among ATTR and AA patients, IHC was inconclusive in 33% each. In the AFib case, IHC ruled out AL, ATTR and AA due to negative reactions for the 4 AB in the panel. **Discussion:** The pitfalls of IHC in subtyping amyloid are well described in the literature. In AL, conformational changes in light chain epitopes during amyloidogenesis make IHC prone to false-negative results and background cross-reactivity to false-positives. In our cohort, IHC was not able to diagnose AL in 90% of cases, and 2 patients were misdiagnosed as ATTR and AA. In ATTR and AA, IHC failed to diagnose the subtype in one third of cases, and AFib was not

diagnosed due to absence of specific AB in the panel. If adopted in clinical practice, this IHC panel would have shown poor diagnostic performance. **Conclusion:** Our study highlights the practical challenges of using IHC with commercial AB to subtype amyloid, reinforcing the need to expand access to MS for accurate amyloidosis diagnosis, enabling patients to receive appropriate treatment.

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SÍNDROME POEMS: SÉRIE DE CASOS DE UM HOSPITAL UNIVERSITÁRIO NO RIO DE JANEIRO

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Introdução: Síndrome POEMS é uma síndrome rara, de patogênese incerta, associada a uma discrasia plasmocitária. Seu acrônimo, descrito em 1980 por Bardwick, se refere a maioria de suas manifestações: polineuropatia, organomegalia, endocrinopatia, componente monoclonal e alterações de pele (skin). O diagnóstico é desafiador devido a apresentação heterogênea e se baseia em critérios clínicos e laboratoriais. **Objetivo:** Relato retrospectivo de uma série de casos de POEMS no nosso Hospital Universitário. Caso 1: Homem, 54 anos, com perda ponderal, lombalgia, edema periférico e polineuropatia sensitivo-motora em luvas e botas ascendente e simétrica. Evidenciada linfonodomegalia cervical (na biópsia Castleman) e lesão cutânea sugestiva de hemangioma glomeruloide. Rastreio ósseo com lesões líticas e escleróticas destrutivas em coluna lombar, imunoeletroforese com gamopatia monoclonal IgG Lambda e eletroneuromiografia com polineuropatia sensitivo motora. Diagnosticada síndrome POEMS e iniciado tratamento com ciclofosfamida e dexametasona. Caso 2: Mulher, 37 anos, com síndrome edemigênica e hipoestesia superficial distal de membros inferiores simétrica. Ao exame, presença de linfonodo axilar (Castleman na biópsia), ascite, esplenomegalia, hiperemia cutânea com nódulos (hemangioma glomeruloide na biópsia) e edema periférico. Eletroforese com pico monoclonal, imagem com presença de lesões líticas e laboratório com pan-hipopituitarismo e hiperparatireoidismo secundário. Diagnosticada com POEMS e submetida a transplante de medula. Caso 3: Mulher, 59 anos, apresentava hipotireoidismo associado a hipogonadismo, esclerodermia, neuropatia, hepatomegalia, pico monoclonal IgA e biópsia de linfonodo com Castleman variante hialina. Iniciou dexametasona em primeira linha de tratamento e não fez transplante de medula por não adesão. Evoluiu com proteinúria e piora clínica, sendo iniciado tratamento com ciclofosfamida, dexametasona e talidomida, com boa resposta. Caso 4: Mulher, 66 anos, portadora de hipotireoidismo, em investigação de polineuropatia inflamatória