Bisalbuminemia en una paciente con síndrome nefrótico

Bisalbuminemia in a patient with nephrotic syndrome

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ABSTRACT

Bisalbuminemia is a hereditary or acquired dysproteinemia characterized by bifid albumin peak on serum protein electrophoresis. Although the clinicopathological significance is yet to be established, it occurs in association with various pathologic states.

Here we present a case of a 65-year old woman, with bisalbuminemia, who was diagnosed with nephrotic syndrome in consequence of AL amyloidosis.

Keywords: Bisalbuminemia, nephrotic síndrome, electrophoresis.

RESUMEN

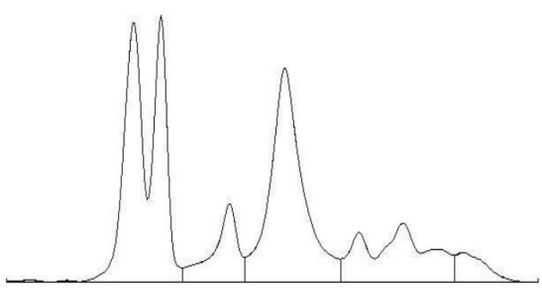
La bisalbuminemia es una disproteinemia hereditaria o adquirida que se caracteriza por un pico bifido de albúmina en la electroforesis de proteínas séricas. Aunque aún no se ha establecido su importancia clínico-patológica, se presenta asociada a diversos estados patológicos.

En este artículo presentamos el caso de una mujer de 65 años, con bisalbuminemia, a la que se le diagnosticó síndrome nefrótico como consecuencia de una amiloidosis AL.

Palabras clave: Bisalbuminemia, síndrome nefrótico, electroforesis.

A 65-year-old white woman, with medical history of depressive disorder, was admitted to the emergency department, complaining of dyspnea and asthenia for the past fifteen days. Upon physical examination, she presented bilateral pitting edema of the lower extremities, diminished breath sounds on the right side, and an oxygen saturation of 92% on room air. From the investigation carried out, the patient presented a right pleural effusion compatible with chylothorax; a nephrotic syndrome (characterized by proteinuria with an urine protein/creatinine ratio of 12.19, hypoalbuminemia of 2 g/dl, peripheral edema, and hyperlipidemia with total cholesterol of 457 mg/dl and triglycerides of 280 mg/dl); serum protein electrophoresis with bisalbuminemia and a peak in the alpha-2 region (Figure 1), and serum free light chain kappa/lambda ratio of 37.79. She underwent a bone marrow biopsy, which diagnosed AL amyloidosis. Treatment with dexamethasone and cyclophosphamide was initiated; however the patient evolved unfavorably and died four days later.

Bisalbuminemia is a rare hereditary or acquired dysproteinemia characterized by bifid albumin peak on serum protein electrophoresis. It occurs due to the presence of two types of albumin with dissimilar mobilities on serum protein electrophoresis – one being the normal albumin and the other an albumin variant. The acquired form has been described in rare cases of nephrotic syndrome. Although no clinicopathological significance has been established, some albumin variants have been reported to have altered affinity for certain physiologic or pharmacologic substances, including corticosteroids.[1-3]



Fractions	%	% Normal
Albumin	39	54 – 68
Alpha 1	9	3 – 6
Alpha 2	32	7 – 13
Beta	16	7 – 14
Gamma	4	10 - 20
Total protein	**(g/dl)**	**(g/dl) Normal**
	3,9	6,0 – 8,0

Figure 1. Serum protein electrophoresis showing the bifid electrophoretic pattern in the albumin region.

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CONFLICT OF INTEREST
The authors declare that they have no conflict of interests.

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ETHICAL ASPECTS
All participants submitted a consent form to be included in this study.

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