BCL-2 EXPRESSION AS A FACTOR OF NEGATIVE PROGNOSIS IN HODGKIN LYMPHOMA.

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Introduction

Although significant progress has been made in the field of BH treatment, in many cases the prognosis related to this disease is unfavorable. This is the reason why a series of factors may positively influence the evolution and prognosis of the disease, considering that their detection in an earlier stage since the start up itself of the disease allow the application of a suitable therapy.The molecular immunology studies revealed that for classic Hodgkin lymphoma the HRS cells (Hodgkin Reed Sternberg) derive from the germinal center of the B cells including the immunoglobulins gene rearrangement, but without the surface expression of the B cell receiver. BCL-2 was identified as the first gene involved in the HRS cell apoptosis. The BCL-2 expression by HRS cells can prevent the apoptosis caused by the absence of functional B cell receivers which explain the tumorigenesis. Also the BCL-2 expression can explain the resistance to the treatment inducing the HRS cell apoptosis.

Purpose

The study proposes the determination of the BCL-2 expression at patients suffering of Hodgkin lymphoma , the correlation between its expression and the biochemical and immunology modifications as well as the evaluation of survival.

Methods

Between April 2008 and April 2013, I conducted a retrospective analytical study on 151 patients diagnosed with Hodgkin lymphoma at the Hematology Department Timisoara . The main method to establish the diagnosis was the biopsy followed by the hystopathological and immunoshytochemical investigation of the sampled tissue.

Results

The average age of the patients included in the study was 49.69±17.46 with a minimum age of 18 years and a maximum age of 89 years , of which 37.7% were women and 62.3% men. The monitoring period since the diagnosis determination was 13.92±6.24 months. For 33.7% of the patients the remission was complete , while for 45.7%, of them the remission was partial and the 17.2% indicated a progressive disease , 0.6% relapsed and 2.5% died.
BCL-2 was identified at 82 patients(54,3%), the intensity being different and depending on the histological level of the disease as follows: BCL-2 expression has been found at 19,8% of those with mixed cellularity, at 39,1% of the patients diagnosed with nodular sclerosis and at 5.3% of those with lymphocyte depletion.
The survival duration of the patients with BCL-2 expression is shorter that of those who do not express the gene, as its expression, from statistic point of view, is significantly positively correlated with the increased values of other immunological markets:CD15, CD20, CD30 and biochemical ones: fibrinogen.

Conclusion

Further to the study completion, it was noticed a lower survival rate for the patients with BCL-2 expression associated to the intense expression of the CD15, CD20, CD30 markers as well as with the increased values of the fibrinogen. The VSH, LDH biochemical markers and the ceruloplasmin are inversely corelated with BCL 2 presence , and the survival rate does not modify significantly when such values are higher than the normal ones.