ABSTRACT

BACKGROUND

Non Hodgkin lymphoma (NHL) is a collection of different subtypes each with different clinical presentations,treatment regimen and prognosis. These subtypes appear to be derived from progenitor cells at different stages of B and T cell development. To date there is no single classification that can predict how a particular tumour in an individual patient might behave. So a need to look at other prognostic indicators has become increasingly relevant. In this study 57 cases of various subtypes of NHL were studied. They were classified by working formulation classification and apoptotic & proliferative indices which were taken as prognostic indicators were applied.

MATERIALS AND METHODS

Histopathological tissue materials of NHL cases from the department of pathology were collected and studied. Sections were made with thickness of 4 microns and stained with haematoxylin and eosin. All cases were classified by working formulation into low,intermediate,high grade. Thin sections were made and apoptotic indices were calculated by counting apoptotic bodies per 1000 cells and expressed in percentage. Immunohistochemical stain for Ki67 was done in all cases. Proliferative indices were calculated by Ki67 positive cells per 1000 cells and expressed in percentage.

RESULTS

The results of apoptotic and proliferative indices were highly variable in different subtypes of NHL. Among the total 57 cases of NHL, by working

formulation classification 21 cases are of low grade,23 cases are intermediate grade and 13 cases are high grade. And then by applying prognostic indicators like proliferation and apoptotic indices out of the 21 cases of low grade lymphomas 4 cases show higher proliferative capacity. Similarly among the 23 cases of intermediate grade lymphomas 5 cases show lower proliferative capacity and other 5 cases show a higher proliferative capacity of >80% .Among the 13 cases of high grade lymphoma all the cases shows a very higher proliferative capacity with very high apoptotic indices.

CONCLUSION

Inspite the availability of a number of new classification for NHL working formulation still holds good in most cases. Though apoptotic indices were found not to be significant in this study,proliferative indices were found to play an important in identifying the aggressiveness of tumour behaviour. The outcome of the analysis of these indices has a positive correlation and has a definite impact over the prognosis of patients with NHL.

KEYWORDS : Non Hodgkin lymphoma, proliferative indices,apoptotic indices