

Original article

Incidence of Hodgkin Disease with granuloma in Fine Needle aspiration cytology of cervical lymph node

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Abstract

Hodgkin disease association with epitheloid granuloma has been known previously. It has a favourable prognosis. Aim – Aim of the present study is to record the incidence of Hodgkin disease with granuloma. Material and method – This is a retrospective study of 4 years. Fine needle aspiration records of Hodgkin disease with and without granulomas were analysed. Result – 7 cases of Hodgkin disease with granuloma were noted among 42 cases of Hodgkin disease. The incidence of granuloma in Hodgkin disease was 16.6%.

Keyword : Lymphoma, Cytology, Lymph node, Epitheloid

Introduction

Hodgkin disease is a lymphoma originating in the lymphocytes of lymph nodes. It is characterised by the orderly spread of disease from one lymph node group to another and by development of systemic symptoms in advance disease. Hodgkin disease and its association with granulomas has been described previously.^[1, 2] Presence of granulomas were thought to be local reaction and can occur in organs uninvolved by the disease. O'Connell and Sack et al observed that Hodgkin disease with granuloma had favourable prognostic significance.^[3, 4] The present study is to determine the incidence of epitheloid granuloma in Hodgkin disease cases diagnosed by Fine needle aspiration cytology of the cervical lymph node. Diagnostic accuracy of Hodgkin Disease by fine needle aspiration cytology is 91.8%.^[5, 6]

Material and Method

This is a retrospective analysis of 42 cases of Hodgkin disease diagnosed between January 2011 to January 2015 a span of 4 year. As this was a retrospective study no ethical issue or patient consent was needed. Out of the 42 cases, 7 cases were of Hodgkin Disease with granuloma and 35 cases were of Hodgkin disease without granuloma. All the fine needle aspiration were done by 10ml syringe and 23 gauze needle. The cytospins were stained by MGG and PAP stain. Granulomas had only collection of epitheloid cells without necrosis. Hodgkin disease was diagnosed by the presence of Reed Sternberg cells and atypical histiocytes in a polymorphous population of cell in the background. All the epitheloid granulomas slides had been stained by Zeihl Neelsen Stain to rule out tuberculosis.

Result

Non-caseating epitheloid granulomas with Hodgkin disease were seen in 7 cases and Hodgkin disease without granulomas were in 35 cases. Male-to-Female ratio of Hodgkin disease with granuloma was 6:1 and Male female ratio of Hogkin disease without granuloma was 7:1.

Mean age of Hodgkin disease with granuloma was 24 years age ranging from 9-52years. Mean age of Hodgkin disease without granuloma was 32 years age ranging from 12-60 years.

Discussion

Hodgkin disease with granuloma has been considered as local reaction by some authors and delayed hypersensitive reaction by other authors. According to Chhabra S et al of PGIMER

Chandigarh, granulomas in neoplasm can be due to co-existing tuberculosis and carcinoma.^[7] As malignancy causes immunosuppression which may lead to reactivation of tuberculosis (as TB has high prevalence in India).

O’Connell et al mentioned that epitheloid granuloma favours prognosis.^[3] The patients having granulomas have longer remission and improved survival rate. Sack et al also had the same observation.^[4]

Our study showed 16.6% incidence of grannuloma, as shown in Table below.

Chopra et al had 14.4% incidence.^[8]

Sack et al had 9% incidence.^[4]

O’Connel et al showed 18.7% incidence.^[3]

Table: Showing incidence of granuloma by different studies.

Author	HD with granuloma	HD without granuloma	Total cases	% (incidence)
Sack et al	55	553	608	9%
O’Connel et al	17	74	91	18.7%
Chopra et al	15	89	104	14.4%
Present	7	35	42	16.6%

Sometime Hodgkin disease may have such florid granulomatous reaction that treatment of tuberculosis is given to the patients.^[9]

Conclusion

Many studies have shown that Hodgkin disease with granuloma has significant prognostic value.

So to seggregate HD with granuloma and without granuloma may help clinicians to follow-up the case with a view of better survival and lower recurrence rate in granulomatous Hodgkin’s patients.

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