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Case Report

Primary Parotid Gland Lymphoma Presented as Painless Mass Diagnosed on Cytology

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ABSTRACT

Primary lymphomas arising from parotid salivary gland are very uncommon. It is often overlooked in clinical practice as tumor like lesions. On Fine Needle Aspiration Cytology (FNAC) examination a high index of suspicion is warranted if predominant lymphoid population with various stages of maturation is observed. This will helpful for quick and efficient diagnosis and early treatment. We here with presenting a case of 85- year -old male patient having rapid enlargement of right parotid mass lesion. FNAC showed features of lymphoproliferative disorder suggestive of Non Hodgkin Lymphoma (NHL) large B cell type. Diagnosis was confirmed by core biopsy on histopathological examination. We are presenting this case for its rarity, clinical behaviour, cytological and histopathological features.

Key words: Tumors of parotid, Lymphoma, Salivary gland cytology.

INTRODUCTION

The lymphoma presenting with parotid gland swelling is rare. It is difficult on clinical examination to distinguish between benign or malignant parotid swelling. Various modalities available for diagnosis of parotid swelling are fine needle aspiration cytology, radiological evaluation and core biopsy. As treatment modalities differs in primary parotid lymphoma and unnecessary surgical removal may be avoided. The primary parotid lymphoma is rare malignancy and constitutes 0.2-0.8% malignant tumour in parotid gland. [1] The prevalence of this rare malignancy has risen in recent decades, may be related to increased incidence of autoimmune disease and correlation of parotid lymphoma with Sjogren syndrome.

CASE REPORT

A 85 year old male, chronic tobacco chewer presented with rapidly increasing painless mass in the region of right parotid. The mass was noted 3 months back with size about 1 cm which was rapidly enlarged to 5.5x 4 x 3 cm in size. (Figure.1) There was no any significant contributory history of any systemic disorder, infection, connective tissue disorder or any immunological disease. General physical examination revealed well nourished individual without any lymphadenopathy or any organomegaly. Local examination of right parotid region showed single, round, nontender, nonpulsatile, mobile, firm swelling measuring approximately 5.5x 4 x3 cm. Oral examination was normal. No any systemic disease was noted. His routine haematological and biochemical parameters were normal. Clinically it was suspected as Sialadenitis? benign parotid gland tumor. FNAC showed highly cellular smears of lymphoid cell population with immature and mature cells (Figure. 2, 3). The neoplastic cells were large, round having high N: C

ratio, hyperchromasia with occasional nucleoli and moderate amount of cytoplasm. The tumor cells were admixed with mature lymphocytes, immunocytes, immunoblasts and prolymphocytes. On FNAC it was diagnosed as lymphoproliferative disorder suggestive of NHL large B cell type (Figure.4). Radiological examination was normal. The core biopsy was performed. On histopathological examination diagnosis was given primary diffuse large B cell NHL of right parotid salivary gland. The neoplastic cells showed evidence of invasion into surrounding parotid gland parenchyma. Patient was evaluated for any other synchronous local, systemic involvement or dissemination. In our case growth was limited and it was stage I as per Ann Arbor Staging System for NHL.

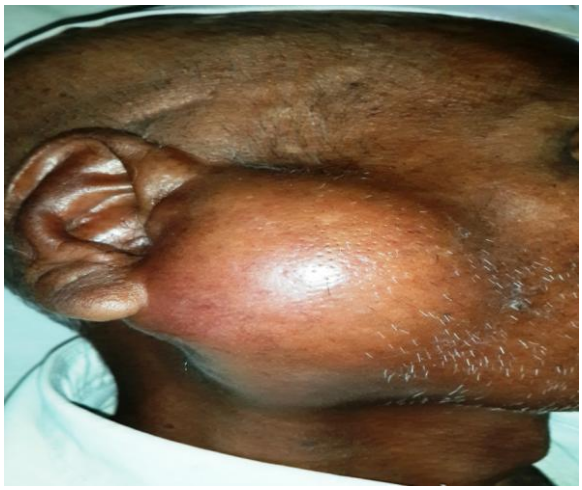

Fig. 1 showing right parotid swelling m. 5.5x4x3 cm

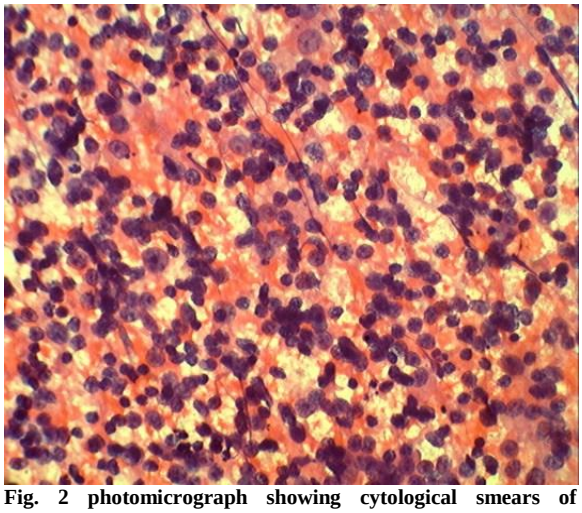

Fig. 2 photomicrograph showing cytological smears of lymphoid cell population of immature and mature cells. (H&E stain, 100X)

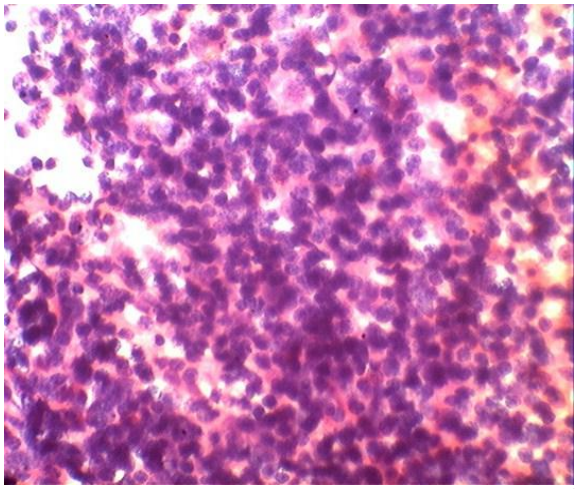

Fig.3 photomicrograph showing cytological smears of lymphoma. (H&E Stain, 100X)

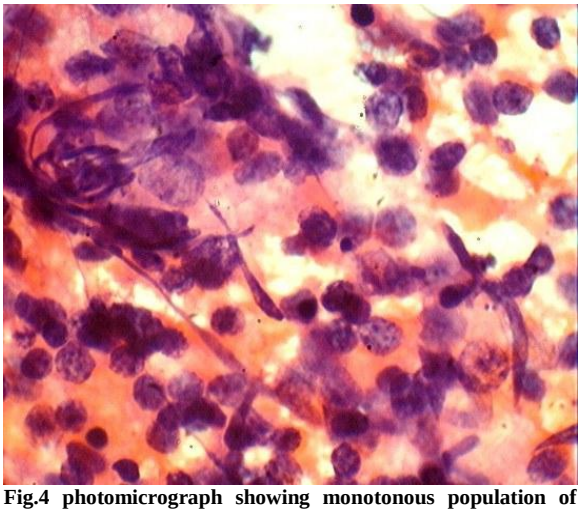

Fig.4 photomicrograph showing monotonous population of large B cell lymphoma cells (H&E stain, 400X).

DISCUSSION

Primary parotid lymphoma account for 0.87% of all NHL cases and 4-5% of all extranodal NHLs. [1] The lymphomas may arises from intra-parotid lymph nodes or parotid gland itself. Hyman and Wolff [2] proposed criteria for the diagnosis of primary parotid lymphoma are:

a) Involvement of the salivary gland as the first clinical manifestation of disease

b) Histologic proof that lymphoma involves the salivary gland parenchyma (rather than being confined to soft tissue and lymph node in the area)

c) Architectural and cytologic confirmation of the malignant nature of the infiltrate.

Most of the cases present with painless, firm swelling in the region of salivary gland and resemble salivary gland neoplasms. Association between MALT

lymphoma and autoimmune disease like SLE and Sjogren syndrome is known. [3]

The diagnosis of parotid lymphoma was difficult on FNAC when prominent lymphoid population was seen. [4] The differential diagnosis of salivary gland with lymphoid rich aspiration smear includes chronic sialadenitis, HIV related benign lymphoproliferative lesion, Warthin tumors, lymphoepithelial carcinoma and metastatic tumors. When the FNAC shows the features of lymphoproliferative disorder, the procedure of choice for final diagnosis of parotid lymphoma should be core biopsy along with flow cytometry and immunophenotyping. In our case core biopsy was done which showed diffuse large B cell NHL with evidence of infiltration of neoplastic cells into surrounding parenchyma.

On histopathological examination infiltration of monoclonal B cell into surrounding parenchyma or ductal epithelium should be looked for confirmation. Most NHLs arising in the salivary glands are B cell linage including low grade B cell lymphoma of MALT, follicular lymphoma and diffuse large B cell lymphoma. [5,6] Wolvius et al. reported the prognosis of follicular lymphoma arising from the salivary glands was being similar to that of MALT type lymphoma. [7] The overall survival and relapse free survival rates 5 years were 94.7% and 51.4% was noted by Dunn P et al. in his study. [8] The treatment of parotid lymphoma includes radiotherapy and chemotherapy as suggested in several reported series. Surgical excision is advocated only as a diagnostic tool. Our patient received treatment of radiotherapy and responded well.

CONCLUSION

As parotid lymphoma is uncommon and it is often overlooked, on clinical examination it is difficult to distinguish between inflammatory and neoplastic salivary gland swelling. The FNAC along with core biopsy, histopathological examination plays important role in diagnosis of this lesion and efficient early treatment.

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