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Localised Amyloidosis Secondary to Tuberculosis- A Report of A Rare Presentation

KEYWORDS: Localised Amyloidosis, Lymph Node, Tuberculosis

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ABSTRACT *In the head and neck region, amyloid deposits have been reported in the tongue, larynx, thyroid, cervical lymph nodes, etc. The larynx is the most common site of involvement. Amyloidosis rarely involves the nasopharynx or neck . In systemic amyloidosis, proteinuria is often the first symptom. Diagnosis of localized amyloidosis is based on histopathological examination (HPE) of tissue specimens. Diagnosis of systemic amyloidosis is with an abdominal fat aspirate or rectal biopsy. Specific organ involvement may be excluded by laboratory or radiologic examinations. Systemic amyloidosis is a serious and usually fatal condition whereas localized amyloidosis has an excellent prognosis. Primary localised mediastinal lymph node amyloidosis and Generalised lymph node amyloidosis secondary to Tuberculosis have been reported in literature. But localised lymph node amyloidosis secondary to Tuberculosis has not yet been reported in medical literature.*

Case-

Previously healthy 18 year Male student from Pune presented with painless non-tender swelling on the right side of the neck which was progressively increasing in size since last two months. Patient had no other complaints. On clinical examination patient had right sided anterior cervical, posterior cervical, preauricular, and submandibular lymphadenopathy. FNAC of right anterior cervical lymph node was suggestive of granulomatous lymphadenopathy ; subsequent biopsy showed granulomatous lesions with caseous necrosis consistent with Tuberculosis. Patient was started on the standard four drug Revised National Tuberculosis Programme (RNTCP) regimen. Patient was followed every month and converted to two drug continuation phase after completion of two months of intensive phase. Lymph nodes were static in size for nine months; hence biopsy of posterior cervical lymph node was taken. Histopathology was suggestive of resolving Tuberculosis with Secondary Amyloidosis.

Several laboratory and radiological evaluations for systemic involvement failed to demonstrate any evidence of systemic amyloidosis or of other organ involvement or of other predisposing causes. Hence, our patient was not subjected to rectal biopsy or abdominal fat aspiration.

Discussion-

In the head and neck region, amyloid deposits have been reported in the tongue, larynx, thyroid, parathyroid gland, eyelid, nasopharynx, gingiva, cervical lymph nodes, maxilla, skull base, nasi, paranasal sinus, nasal septum, parotid gland, external ear canal, oral cavity, pharynx, and the pinna(1,5). The larynx is the most common site of involvement, and amyloid deposits account for 0.2–1.5% of benign laryngeal tumors (6) . Amyloidosis rarely involves the nasopharynx or neck (3,5). In systemic amyloidosis, proteinuria is often the first symptom; other manifestations include peripheral neuropathies, dementia and cognitive dysfunction, and organ enlargement, especially of the liver, kidney, spleen and heart (2). Diagnosis of amyloidosis requires pathologic examination of amyloid deposits in tissue specimens. On gross examination, organs infiltrated with amyloid have a characteristic rubbery and firm consistency. A waxy, gray or yellow appearance is typical. On microscopic examination, amyloid deposits are focally located within the mesenchyme of affected organs with a perivascular distribution. The widely used Congo red stain imparts a characteristic apple-green birefringence when stained tissue sections are viewed using a polarizing microscope. Diagnosis of systemic amyloidosis can be achieved with an abdominal fat aspirate or rectal biopsy; these 2 tests are positive in 75–90% of patients. Specific organ involvement may also be excluded by laboratory or radiologic examinations (8). Systemic amyloidosis is a serious and usually fatal condition, in which accumulation of amyloid fibrils in the tissues destroys normal structure and function. Conversely, localized amyloidosis has an excellent prognosis. No documentation exists to suggest that localized amyloidosis can progress to systemic amyloidosis. Thus, it is important to determine whether amyloid deposits in the head and neck represent the systemic or localized form (1); a biopsy from the head and neck that reveals amyloid therefore necessitates evaluation for systemic involvement by rectal biopsy or abdominal fat aspiration. To identify the relationship between amyloidosis and multiple myeloma, serum and urine electrophoresis and immunoelectrophoresis should also be performed. Clevens et al reported CT images from a patient with neck amyloidoma to show a multilobulated mass, consistent with lymphadenopathy (8). However, other authors considered the CT findings of neck amyloidosis to be nondescript (9,10). Primary localised mediastinal lymph node amyloidosis has been reported in literature (12,13). Generalised amyloidosis including lymph node involvement Secondary to Tuberculosis has also been reported in literature (14). But localised lymph node amyloidosis secondary to Tuberculosis has not yet been reported in medical literature.

In conclusion, amyloid deposits in the head and neck necessitate further evaluation for systemic amyloidosis. Localized excision is a good treatment option for localized amyloidosis, which rarely involves multiple sites in the head and neck, and can provide an accurate diagnosis. However, as localized amyloidosis is a slow, benign process, surgical intervention must preserve organ function as much as possible. Although rare, amyloidosis should be considered in the differential diagnosis of head and neck masses. Indeed, otolaryngologists must be aware of the various manifestations of localized amyloidosis and arrange treatment(15)

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