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General Surgery

A PECULIAR CASE OF ISOLATED METASTATIC INGUINAL LYMPHADENOPATHY IN A YOUNG LADY – A CASE REPORT

Dr Anil Kumar MS Professor, JSS medical college and hospital, Mysuru.

Dr Pankaja SS Assistant Professor, JSS medical college and hospital, Mysuru.

Dr Kavuru Pavan Rajesh* Post Graduate, JSS medical college and hospital, Mysuru. *Corresponding Author

KEYWORDS :

INTRODUCTION:

Lymphadenopathy refers to the swelling of lymph nodes which can be secondary to bacterial, viral or fungal infections, autoimmune disease and malignancy. Lymphadenopathy can be localized or diffuse. About 75% of most lymphadenopathies are localized, and about 50% of those occur in the head and neck regions [3]. Inguinal lymphadenopathy occurs at the groin region and most common causes include infections of leg or foot, STDs, non Hodgkin's lymphoma, tuberculosis and pelvic malignancies. One of the rare causes includes distant metastasis of nasopharyngeal carcinoma (NPC) which is present in our case. Nasopharyngeal cancer is an uncommon squamous cell carcinoma in the head and neck region, in most parts of the world. It has a high propensity for lymphatic spread and is known for regional metastases with occult primary at presentation [1]. The incidence of distant metastasis at presentation ranges from 4.4 to 6%. The most common sites of metastasis are bone (70%–80%) followed by liver (30%), lungs (18%) and distant lymph nodes (axillary, mediastinal, pelvic and inguinal, in that order) [2]. About 98% of them are discovered within 3 years of treatment. As it is a highly chemo and radio-sensitive tumor, radiotherapy with concurrent chemotherapy is the mainstay in the management of local and advanced diseases. Here we are presenting a peculiar case of previously treated NPC presenting as isolated left inguinal metastatic lymphadenopathy in a young lady.

Case Summary:

A 24 years old female patient with hypothyroidism presented with swelling over the left groin for 5 years and associated with pain for 2 weeks. The patient had a previous history of difficulty in swallowing with painless swelling over the left side of the neck in 2015 (5 years ago), for which she underwent FNAC of the neck swelling. That was reported as metastatic nasopharyngeal carcinoma /non-Hodgkin's lymphoma. Further evaluation was done with CT scan of paranasal sinuses followed by biopsy of the nasopharyngeal area, done under general anesthesia. Histopathology confirmed NPC, for which she received 6 cycles of chemotherapy and 36 cycles of radiotherapy. The patient also had isolated left inguinal lymphadenopathy at the same time and the FNAC was suspicious of tuberculosis. Hence she had also received antitubercular treatment for 6 months. However, the groin swelling persisted with the same size and it was painless. Post-treatment FDG PET done in 2016 showed no evidence of loco-regional recurrence or distant metastasis including the left inguinal region. Follow-up USG neck done in 2017 also showed no evidence of any regional recurrence. After 5 years, i.e. in the year 2020, she presented with complaints of painful left inguinal lymphadenopathy which was of size 7x8 cm with no associated skin changes. The patient denied any loss of weight. The patient refused to undergo FNAC for the swelling. Hence excision biopsy was done under spinal anesthesia.

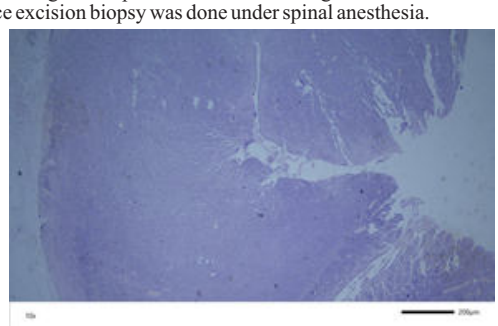

Figure 1.

The histopathology slide above shows effacement of architecture with tumor cells arranged in syncytial pattern. Individual tumor cells have moderate amount of cytoplasm, pleomorphic vesicular nuclei and conspicuous eosinophilic nucleoli. Intervening stroma show lymphoid cells and fibrous tissue. Extranodal extension seen. Features suggestive of metastatic carcinoma.

Histopathology of the swelling revealed it to be metastatic undifferentiated carcinoma. After which, a PET FDG scan was done that showed multiple enlarged lymph nodes in the pelvic, bilateral inguinal and femoral regions with no activity in the nasopharyngeal or neck region. So she was diagnosed as distant metastasis secondary to previously treated nasopharyngeal carcinoma, for which she is undergoing chemotherapy under medical oncology. The left inguinal surgical wound has healed well with no residual swelling.

DISCUSSION

Inguinal lymphadenopathy is present in cases of regional infections and metastasis of regional carcinomas. The presentation of inguinal lymphadenopathy as a distant metastasis is very rare.

Metastatic nodes from NPC have been associated with poor outcome, especially for cases with bulky nodes (>6 cm), necrosis or nodes in the lower neck [4]. It is estimated that 15 to 60% of patients develop local recurrence and 30 to 40% of people develop distant metastasis within 4 years after primary treatment [5].

In recent times CT paranasal sinus is playing an important role in the early diagnosis of NPC, as CT scan is cheaper, widely available, and quicker although there is a risk of radiation exposure. In our case, CT scan of paranasal sinuses was useful for early diagnosis as there were no nasal symptoms in the presence of cervical lymphadenopathy. MRI and FDG PET have complementary roles, with MRI contributing to T staging and FDG PET having greater efficacy for N and M staging. FDG PET/CT is also useful in assessing the response to treatment. Chemotherapy is the option of choice when there is distant metastasis. Advanced NPC cases with distant poly-metastasis are offered palliative chemotherapy. The agents of choice are cisplatin and 5-fluorouracil. With recent advances, several chemotherapeutic agents are available for the continuation of therapy. However, the median survival rate used to be not more than a year [7].

Many studies have been done to know the route of cancer cell dissemination as distant metastasis. A study done by Periera ER et al has shown that the lymph node metastases can disseminate by invading lymph node blood vessels rather than by transiting through efferent lymphatic vessels in mice model. The route of cancer cell dissemination to distant sites in patients is complex and highly debated, in part because of limited clinical and experimental evidence [19].

PROGNOSIS

The overall prognosis and the 5-year survival rate have improved since the advent of nuances in the radiotherapy techniques. This change shows a drastically decreased mortality and morbidity associated with illness from a reported 5-year survival of 25% to 40% to approximately 70% in the past decade. [7]

CONCLUSION

Distant metastasis of carcinoma to inguinal lymph nodes is very rare. Because of the advent of imaging techniques, it was possible to

diagnose and institute treatment early in our case. Regular follow up and FDG PET scanning was useful in this patient during post chemoradiotherapy session to screen for distant metastasis. Early diagnosis, early institution of chemoradiotherapy and regular screening had helped the patient to have the best overall survival rate. The occurrence of inguinal metastasis is very rare and unusually manifested in our case.

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