



ELSEVIER



SHORT COMMUNICATION

Sentinel Lymph Node Biopsy (SLNB) in management of N0 stage T₁–T₂ lip cancer as a ‘‘Same Day’’ procedure

H.H. Khalil ^{a,*}, A.H. Elaffandi ^b, A. Afifi ^a, Y. Alsayed ^c, T. Mahboub ^a, K.M. El-Refaie ^a

^a Department of Plastic & Reconstructive Surgery, Cairo University Teaching Hospitals, Cairo, Egypt

^b Department of General Surgery, Cairo University Teaching Hospitals, Cairo, Egypt

^c Department of Nuclear Medicine, Cairo University Teaching Hospitals, Cairo, Egypt

Received 6 June 2007; received in revised form 14 July 2007; accepted 16 July 2007

Available online 23 October 2007

KEYWORDS

Lip;
Cancer;
Sentinel;
Lymph;
Node

Summary Current management of N0 stage lip Squamous Cell Carcinoma (SCC) are prophylactic neck dissection, radiotherapy, or ‘‘watch and see’’ policy. The aim is the evaluation of the role of sentinel lymph node biopsy (SLNB) in their management based upon actual and not hypothetical presence of cervical lymph node (CLN) micrometastases as a same day procedure. Fourteen patients between November 2003 and August 2005 were included, nine men and five women, median age:57 years, (range 34–65 years). SLNB using preoperative lymphoscintigraphy and intra-operative localisation with patent blue and radioactive Tc^{99m} Human Serum Albumin was performed. The median follow-up period was 26 months. Successful patent blue localisation in 13/14 whilst successful radio-localisation in all patients. Micrometastases were detected in 1/14 whom underwent therapeutic neck dissection. No local recurrence or regional lymph node involvement were detected. SLNB is a technically feasible and accurate approach for detection of CLN micrometastases in N0 stage lip SCC using the triple diagnostic localisation technique as a same day procedure.

© 2007 Elsevier Ltd. All rights reserved.

Introduction

The most important prognostic factor in lip squamous cell cancer is the presence of cervical lymph node CLN metastases.¹

The frequency of CLN metastasis in lip Squamous cell carcinoma SCC patients is low especially cutaneous lesion (vermillion) more than mucosal, however, when present, it reduces the survival rate. This emphasises the importance of the management of neck lymph nodes as a vital step in the treatment of these patients.² There should be a potential tendency to treat the neck of these patients based on

* Corresponding author. Tel.: +44 7711740386.

E-mail address: heheaa73@yahoo.com (H.H. Khalil).

actual, not hypothetical, presence of CLN micrometastases. The most reliable method in detecting the presence of CLN micrometastases in N0 stage lip SCC is elective block neck dissection. The management of the neck nodes in the absence of adenopathy is still controversial.³ Since the risk of the micrometastases is 8–20%, elective block neck dissection or radiotherapy has been shown to be an over-treatment in a large percentage reaching more than 80% of patients with N0 stage. On the other hand, follow up of the patients by a ‘‘watch and see’’ policy could delay treatment in the micrometastases group.^{1,4}

The early identification of occult CLN metastases in N0 stage would present an important advance in the management of these patients to improve the mortality and morbidity. SLNB as a minimally invasive technique will allow accurate staging of the nodal basin thus sparing the majority of patients unnecessary elective prophylactic block neck dissection or radiotherapy and on the other hand avoids delayed treatment in the micrometastases group managed by ‘‘watch and see’’ policy.

The aim of this study is to evaluate the role of the SLNB in detection of CLN micrometastases in N0 stage with T₁–T₂ lip SCC as a same day procedure.

Patients and methods

Fourteen consecutive patients with N0 stage lip SCC treated between November 2003 and August 2005 were included in the study. There were nine men and five women (median age: 57 years, range: 34–65 years). The anatomical sites for the primary tumours are shown in Table 1. Twelve patients presented with mucocutaneous (vermilion) lesions, one presented with a cutaneous lesion and one with an upper mucosal lesion. Two patients were staged as T₁N₀M₀ and twelve patients as T₂N₀M₀. All the patients underwent a full clinical examination, routine laboratory investigations and a preoperative diagnostic incisional biopsy. Histopathological examination revealed low-grade Squamous Cell Carcinoma in 13 and high-grade in 1 patient.

Technique of SLNB

Patients were admitted in the morning to the nuclear medicine department where preoperative lymphoscintigraphy was performed by intra-lesional injection of 18 MBq (0.5 mCi) radioactive Human Serum Albumin (Tc^{99m}HSA) then an immediate dynamic image using gamma camera (low-energy collimator) to assess the uptake of the radiotracer by the cervical lymphatic channels. This was followed by a delayed static image after 1 h to evaluate the local accumulation of the radiotracer in the cervical lymph nodes (Fig. 1).

Table 1 Anatomical site for the primary lesion

Site of primary lesion	Number of patients
Labio-commissure	2
Lower lip	
Central	2
Junction middle and lateral third	9
Upper lip	1

The location of the suspicious sentinel lymph node was marked on the skin. Two hour later patients were taken to the operating suite and prepared for surgery under general anaesthesia. All patients underwent intra-lesional injection of 1 ml 2.5% patent blue and the handheld gamma probe (semiconductor cadmium telluride (cd-te) crystal 2002, Gamma Sonics, Australia) was used transcutaneously to assess the sentinel lymph node (Fig. 2).

The sentinel lymph node was explored through a 2–3 cm incision and identification was confirmed by patent blue visualisation and radio-localisation using the handheld gamma probe. Avoidance of overlapping and scattering of the radioactivity from the primary site was achieved by placing a lead shield on the primary tumour, changing the angulations of the handheld gamma probe directing it away from the primary tumour and shielding the hand piece from the scattering radioactivity by adding a collimator (Fig. 3). The sentinel lymph node was then dissected, individually removed and then closure of the wound after adequate haemostasis was performed without drain.

SLNB performed in all patients was followed by surgical resection of the primary tumour with primary closure of the resultant defect. All patients were discharged within less than 23 h with their first follow-up visit within one week (Fig. 4). Paraffin section for histopathological examination was performed on all specimens. All patients were followed up clinically for detection of recurrence and CLN involvement with a median follow-up period of 26 months.

Results

Isotope injection successfully identified the sentinel lymph node in all patients whilst patent blue injection localised it in 13/14 patients. In thirteen patients’ one sentinel lymph node was harvested whilst two sentinel lymph nodes were harvested in one patient where visual localisation with blue dye was not possible. Two sentinel lymph nodes were detected in the submental region whilst twelve in the submandibular region. The distributions of the sentinel lymph nodes in relation to the primary lesion are shown in Table 2. The results of the histopathological examination for SLNB were negative for micrometastases in 13/14 patients. Only one patient clinically staged as (T₂N₀M₀) showed a positive sentinel lymph node for micrometastases. This patient underwent a therapeutic modified block neck dissection (MRND), which showed no other lymph node involvement throughout the lymphatic basin. No further surgery was performed on the other 13 patients. No postoperative morbidity including haematoma, seroma or neuropraxia were detected in any of the patients. None of the patients showed evidence of recurrence or CLN involvement during the follow-up period.

Discussion

The main prognostic factors that affects the outcome of patients with head and neck cancer in general and lip SCC in particular is regional lymph node metastases.⁵ Micrometastases were defined as single or multiple deposits of tumour found within the lymph nodes with minimal disturbance of the nodal architecture and being less than 3 mm in axial

Download English Version:

<https://daneshyari.com/en/article/3165548>

Download Persian Version:

<https://daneshyari.com/article/3165548>

[Daneshyari.com](https://daneshyari.com)