

## 建立偵測口腔癌先鋒淋巴結模式

### Model establishment of Sentinel lymph nodes detection in oral squamous cell carcinoma

#### 中文摘要

背景與目的：口腔癌治療的成功與否跟腫瘤淋巴轉移是否被發現與被控制有相當大的關係，但以手術治療口腔癌時對於頸部淋巴摘除與否及要摘除多大範圍的淋巴組織一直存在著爭議，且無定論。近來對於癌症淋巴轉移偵測與治療有突破性的概念-先鋒淋巴結(sentinel lymph node)，似乎是解決長久以來困擾口腔癌關於頸部淋巴轉移治療爭議之可能方法之一。先鋒淋巴結已成功的應用於黑色素癌與乳癌，但同樣屬於表淺層且易淋巴轉移之口腔癌則尚僅有零星應用之臨床研究報告發表。本研究希望應用先鋒淋巴結概念於口腔癌之手術治療，評估此概念應用於口腔癌手術是否可行，臨床應用價值有多少。研究方法：研究對象為術前評估淋巴轉移 0 期的口腔癌病患，使用腫瘤周邊注射法(peritumoral injection)注射非過濾性 Tc-99m 硫化懸浮液(sulfur colloid)。後使用淋巴閃爍攝影圖(lymphoscintigraph)及加馬探針(gamma probe)放射線定位先鋒淋巴結，摘除所有之高危險先鋒淋巴結，紀錄每一病例相關之因子腫瘤與先鋒淋巴結。結果：共 28 例口腔癌患者符合篩檢條件並於術中接受先鋒淋巴結偵測，15 例位於頰黏膜、7 例在舌部、3 例位於唇、2 例位於牙齦及 1 例位於口底。總共在 27 個病例身上發現 64 枚先鋒淋巴結鑑別率(identification rate) 為 96.4%。6 位病例之先鋒淋巴結有癌細胞轉移，除此之外無任何病例在非先鋒淋巴結內發現轉移，本研究之先鋒淋巴結偽陰性率為 0%。分析相關因子年齡、腫瘤大小、型態、位置及時間間隔對先鋒淋巴結的偵測並無影響，但是出現轉移的病例其發現的先鋒淋巴結數目明顯高於無轉移之病例( $p < 0.05$  by Mann-Whitney U test)。結論：使用此模式進行口腔癌先鋒淋巴結的偵測有良好的鑑別率與敏感度(specific rate)。在此研究中有轉移的病例其先鋒淋巴結的數目明顯大於無轉移者，因此未來將可利用先鋒淋巴結偵測，移除所有可能的危險淋巴結，如此來評估先鋒淋巴結對口腔癌治療的預後的影響，當可期待。

#### 英文摘要

Background and Objective: It was still controversy in dealing with the neck lymphatic metastasis during surgical management of oral cancer. How to eradicate the high risk lymph nodes of the neck appropriately also reduce the morbidity is dilemma. Over the past decade since the concept of sentinel lymph nodes first applied to the surgical intervention of melanoma and breast cancer. It had become a routine path in surgical management of above cancers with sentinel lymph nodes biopsy. There were only few articles discussing the sentinel lymph nodes detection

in head and neck cancer, nonetheless the oral cancer. In this study we will apply the sentinel lymph nodes concept in the surgical intervention of the oral cancer. Establishing a amenable model of sentinel lymph node detection for oral cancer, and evaluation the value and variability. Methods: There was preoperative clinic NO stage, oral squamous cell carcinoma collected in this study. Peritumoral injected with unfiltered Tc-99m sulfur colloid, then radiolocalized SLN with lymphoscintigraph and gamma probe. All the cases register the parameters that related to the tumor and individuals. Results: 28 OSCC patients met the criteria and included in this study, 15 in buccal , 7 in tongue, 3 in lip, 2 in gingival and 1 in floor of mouth. 64 SLN in 27 patients was identified by this method, identification rate is 96.4%. 6 patients had positive sentinel nodes, and no false negative prediction of SLN in entire study patients. Age, tumor size , morphology , location and time interval. The above parameters have no significant influence to the numbers of sentinel lymph nodes. But the numbers of sentinel lymph nodes of pathologic positive finding cases is significant higher than negative finding cases( $p < 0.05$  by Mann-Whitney U test). Conclusion: Radiolocalization sentinel lymph nodes biopsy by our study model result in acceptable identification and specific rate. The significant higher numbers of sentinel nodes of pathologic positive cases indicated the potential clinical value of sentinel lymph nodes in oral cancer treatment. It will need more clinical trial included to prove that.