原文題目(出處)：	Extranodal non-Hodgkin's lymphoma in the malar region-a case report. Oral Surgery 2012;5:22–5
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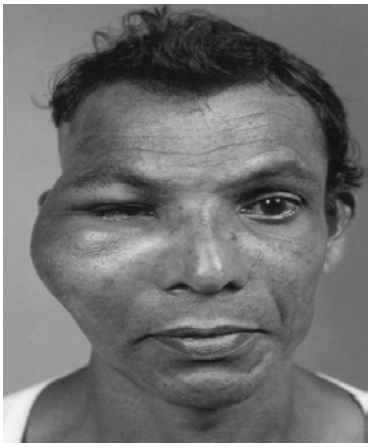
報告日期：	101.04.10

內文：

Introduction

- Lymphomas account for 4–5% of all neoplasm.
- Extranodal involvement in Hodgkin's lymphoma are rare, but its frequency accounts for 25% or more in patients with non-Hodgkin's lymphoma (NHL).
- The head and neck region has the highest regional incidence of (NHL)
- NHL generally responds to most modalities of treatment, including :
  1. radiation therapy
  2. single agent or combination chemotherapy
  3. immunotherapy
  4. radioimmunoconjugate therapy.
- Recent studies have shown that radiotherapy is no more used in diffuse large B-cell lymphoma (DLBCL)

Case report



- **General data:** 51-year-old man
- **Chief complaint:** asymptomatic swelling in the right middle third of the face for 5 months.
- **Present illness:** Initially, the swelling was of peanut size, which was slowly growing. He had undergone biopsy for the same condition, and the report was suggestive of a non-specific granuloma. Following the biopsy, the swelling grew rapidly to the present size. He gave no history of weight loss, fever, night sweats or sinus disease.
- **Past medical and dental histories:** not significant.
- **Physical examination:**
  - a solitary, ovoid, ill-defined swelling over the right malar region
  - size: 5 x 4 cm (Fig. 1)
  - anterior-posteriorly: extending from lateral border of the nose to 2 cm ahead of tragus
  - superior-inferiorly : from 1 cm above the supra-orbital ridge to the corner of the mouth.
  - Skin over the swelling : taut with no secondary changes
  - Palpation pain: (+)the swelling was mildly tender with well-defined borders.
  - consistency : firm to hard, fixed to the underlying structures
  - Neither mobile nor reducible
  - Multiple ipsilateral parotid lymph nodes were palpable, mobile, firm in

consistency and non-tender.
- Intraorally: no sign of the swelling was noted
- Salivary flow was normal.
- Paraesthesia: (-)
- Eyelid movements: restricted
- Facial nerve function: normal
- Elsewhere in body:
  - abnormal swelling (-),
  - lymphadenopathy (-)
- periapical radiograph over 14, 15, 16: haziness in the right maxillary antrum
- Waters' view revealed: an illdefined radiopaque mass superimposed over the right malar region

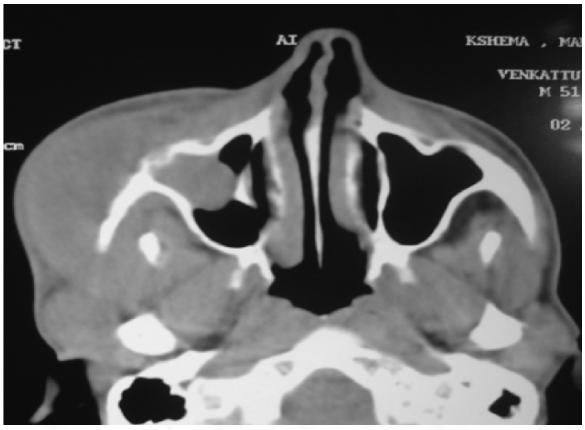
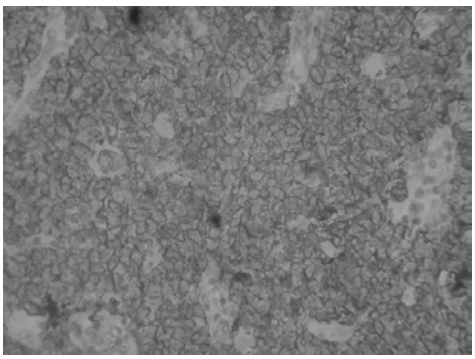


Figure 2 Axial computed tomography showing a well defined hypodense mass with a few areas of cortical erosion, involving the maxillary sinus but not occupying the entire sinus.

- Incisional biopsy was performed extraorally, H-P report:
  - 'Slit like' vascular spaces surrounded by endothelial cells with few mitotic figures and nuclear atypia were seen, which were suggestive of an intermediate vascular lesion.
- The lesion was surgically excised using Weber–Ferguson's incision.
- **Specimen:** showed monotonous sheets of round cells with scanty cytoplasm and dense course nucleus. Nuclear atypia was seen, suggestive of a round cell tumour.
- **Immunohistochemical assay** was carried out, which demonstrated CD20 (+) and CD3 (-) :
  - suggested of a tumour of B-lymphocyte origin.
- **diagnosis :** extranodal NHL (DLBCL) , staged as II–E. (Ann Arbor).



- Chemotherapy was given with Cyclophosphamide, Hydroxydaunorubicin, Oncovin, Prednisone (CHOP) regime, that is, each cycle is repeated every 3 weeks for 6–8 cycles, and patient is on regular follow-up.

- **CHOP** is the acronym for a chemotherapy regimen used in the treatment of non-Hodgkin lymphoma. CHOP consists of:
  - Cyclophosphamide, an alkylating agent which damages DNA by binding to it and causing cross-links
  - Hydroxydaunorubicin (also called doxorubicin or Adriamycin), an intercalating agent which damages DNA by inserting itself between DNA bases
  - Oncovin (vincristine), which prevents cells from duplicating by binding to the protein tubulin
  - Prednisone or prednisolone, which are corticosteroids.

- **Discussion**

- Origin: NHL can either be of B-lymphocyte or T-lymphocyte origin
- NHL accounts for 5% of new cancers in men
- 4% of new cancers in women
- 5% of deaths due to cancer each year
- Incidence increases with age and peaks in individuals aged 80–90 years.
- Men > Women: NHL is more common in men than women.
- USA > Asian: The incidence is highest in white people in the USA and lowest in Asia.

- Etiology : The cause of NHL is unknown. However, immunodeficiency and some infectious agents like Epstein-Barr Virus (EBV) and Human T-Lymphotropic Virus-1 (HTLV-I) have been suggested in the aetiology.
- Predisposing factors that may be related to the development of NHL are:
  - exposure to drugs or infectious agents
  - previous irradiation,
  - immunosuppression,
  - history of Sjogren's syndrome,
  - Hashimoto's thyroiditis in association with thyroid lymphoma.
- The most common site involved in the orofacial region is：
  1. the tonsil (34%)
  2. salivary glands (15%),
  3. thyroid (14%)
  4. sinus/nasal cavity (13%).
  5. tongue, palate and orbit
- Most common presenting feature :
  1. a mass or a swelling (59%)
  2. minimal symptoms: pain (21%)
  3. dysphasia (7.9%)
  4. weight loss (1.1%)
  5. night sweats(0.5%)
  6. nasal obstruction (7.9).

  In our case, there was mild tenderness noted.

TABLE 5: Ann Arbor staging classification for NHL[a]

Stage	Area of involvement
I	One lymph node region
IE	One extralymphatic organ or site
II	Two or more lymph node regions on the same side of the diaphragm
IIE	One extralymphatic organ or site (localized) in addition to criteria for stage II
III	Lymph node regions on both sides of the diaphragm
IIIE	One extralymphatic organ or site (localized) in addition to criteria for stage III
IIIS	Spleen in addition to criteria for stage III
IIISE	Spleen and one extralymphatic organ or site (localized) in addition to criteria for stage III
IV	One or more extralymphatic organs with or without associated lymph node involvement (diffuse or disseminated); involved organs should be designated by subscript letters (P, lung; H, liver; M, bone marrow)

[a]Class A patients experience no symptoms; class B patients experience unexplained fever of ≥ 101.5°F; unexplained, drenching night sweats; or loss of > 10% body weight within the previous 6 months.

In our case, the lesion was stage II E and was diffused B-cell type

- B-cell lineage cases show pan CD20 positivity : In this case CD20 (+)
- The expression of individual antigens is related to different stages of B-cell differentiation : including
  - CD5
  - CD10
  - bcl-6
  - MUM1/IRF4
  - CD138

  may help define groups of tumours with different clinical and pathological characteristics.
- differential diagnosis:
  1. diffuse mixed small/large cell lymphoma
  2. small lymphocytic lymphoma
  3. extranodal natural killer (NK)/T-cell lymphoma: is the most common lymphoma involving the sinonasal region.

題號	題目
1	Which statement is wrong about Non-Hodgdin's Lymphoma(NHL) ? (A) NHL most commonly originates from B-lymphocyte series. (B) EBV(Epstein-Barr virus) may be the etiology of NHL (C) In the Korea and Japan, half of all lymphoma are extranodal (D) Clinical features is nontender mass that rapid swelling
答案(D)	出處：oral and maxillafacial pathology(second edition) p.519
題號	題目
2	Which statement about the classification of NHL is wrong? (A) Lymphoma can be broadly grouped into three categories: low grade, intermediate grade, high grade (B) The categories correlated with the increasing degree of aggressiveness (C) Small lymphocytic lymphoma was classified as low grade (D) Diffuse mixed/large cell lymphoma was classified as high grade lymphoma
答案(D)	出處：oral and maxillafacial pathology(second edition) p.518 table 13-3

Table 13-3 *Classification of the Non-Hodgkin's Lymphomas by the Working Formulation*

SUBTYPE	FREQUENCY (%)	GROWTH PATTERN	MEDIAN AGE	POTENTIALLY CURABLE WITH CHEMOTHERAPY?
Low Grade				
A. Small lymphocytic	4	Diffuse	61	Unproved
B. Follicular small cleaved cell	23	Follicular	54	Unproved
C. Follicular mixed cell	8	Follicular	56	Controversial
Intermediate Grade				
D. Follicular large cell	4	Follicular	55	Controversial
E. Diffuse small cleaved cell	7	Diffuse	58	Controversial
F. Diffuse mixed cell	7	Diffuse	58	Yes
G. Diffuse large cell	20	Diffuse	57	Yes
High Grade				
H. Immunoblastic	8	Diffuse	51	Yes
I. Lymphoblastic	4	Diffuse	17	Yes
J. Small noncleaved cell	5	Diffuse	30	Yes

From Armitage JO: Treatment of non-Hodgkin's lymphoma, *N Engl J Med* 328:1023-1030, 1993.

Box 13-2 *Revised European-American Lymphoma (REAL) Classification*

B-CELL NEOPLASMS

I. Precursor B-cell neoplasms
   Precursor B-lymphoblastic leukemia/lymphoma
II. Peripheral B-cell neoplasms
   1. B-cell chronic lymphocytic leukemia/prolymphocytic leukemia/small lymphocytic lymphoma
   2. Lymphoplasmacytoid lymphoma/immunocytoma
   3. Mantle cell lymphoma
   4. Follicle center lymphoma, follicular
   5. Marginal zone B-cell lymphoma
   6. Provisional entity: splenic marginal zone lymphoma
   7. Hairy cell leukemia
   8. Plasmacytoma/plasma cell myeloma
   9. Diffuse large B-cell lymphoma
   10. Burkitt's lymphoma
   11. Provisional entity: diffuse large B-cell lymphoma, Burkittlike

T-CELL AND PUTATIVE NK CELL NEOPLASMS

I. Precursor T-cell neoplasm
II. Peripheral T-cell neoplasms
   1. T-cell chronic lymphocytic leukemia
   2. Large granular lymphocytic leukemia
   3. Mycosis fungoides/Sézary syndrome
   4. Peripheral T-cell lymphoma unspecified
   5. Angioimmunoblastic T-cell lymphoma
   6. Angiocentric lymphoma
   7. Intestinal T-cell lymphoma
   8. Adult T-cell lymphoma/leukemia
   9. Anaplastic large cell lymphoma
   10. Provisional entity: anaplastic large-cell lymphoma, Hodgkin's-like