

Burkitt lymphoma

An **8-year-old boy** is brought to the clinic for evaluation of **jaw swelling and an open wound on the cheek**. The patient and family recently immigrated from **Africa**.

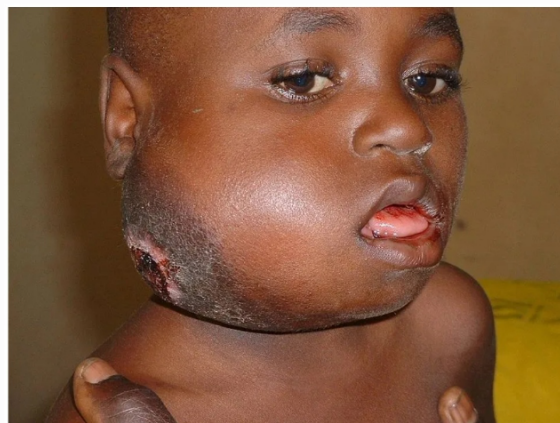
The jaw wound has enlarged over the course of a few months and has been associated with intermittent fevers, fatigue, and weight loss.

There was no recent trauma or insect bite to the area. Photograph of the wound is shown below.

Biopsy of the jaw mass is obtained, and histopathology shows undifferentiated squamous epithelial cells **forming a "starry sky"** appearance.

Which of the following best describes the underlying process causing this patient's condition?

1. Formation of BCR-ABL hybrid
2. **Epstein-Barr virus infection of B cells through CD21**
3. Human herpes virus-8 infection in patients with HIV
4. Parvovirus B19 infection of erythrocyte precursors
5. Involvement of CN V1 by varicella zoster virus



8) A 9-year old girl has had increasing abdominal distention and pain for the past 3 days. An abdominal CT scan shows a large mass involving the small bowel. The mass was resected and microscopic examination shows sheets of intermediate size lymphocytes, with nuclei several nucleoli and many mitotic figures. Cytogenetic analysis of the cells from the mass shows t(8;14) karyotype. Which of the following is the most likely diagnosis?

- a. Precursor T acute lymphoblastic lymphoma
- b. Precursor B acute lymphoblastic lymphoma
- c. Hodgkin lymphoma.
- d. Marginal zone lymphoma.
- e. Burkitt lymphoma. XXX

DIFFUSE LARGE B CELL LYMPHOMA

A 60-year-old man comes to his physician for evaluation of fever and weight loss for the past two months.

The patient states he has noted **various non-tender lumps on his body**, in particular one in his neck that has grown rapidly over the past few weeks. The patient has no significant past medical history. Vitals are within normal limits.

Physical examination reveals several **nontender, enlarged supraclavicular, and axillary lymph nodes**. A CT chest-abdomen-pelvis reveals enlarged mesenteric and mediastinal lymph nodes. Analysis of a biopsied axillary lymph node **demonstrates Lymphocytes with a high proliferative index that stain positive for CD20**. Further **genetic analysis reveals a translocation involving the BCL6 gene on chromosome 3**.

Which of the following is the most likely diagnosis?

1. Hodgkin lymphoma
2. Follicular lymphoma
3. **Diffuse large B-cell lymphoma**
4. Hairy cell leukemia
5. Burkitt lymphoma

* **DIFFUSE LARGE B-CELL LYMPHOMA**
- **AGGRESSIVE GROWTH**
- **MOST COMMON NON-HODGKIN B-CELL LYMPHOMA in ADULTS**
- **LINKED w/ BCL-6 & BCL-2 MUTATIONS** 

Mycosis Fungoides

A 46-year-old man comes to his physician for assessment of a pruritic rash for the past two months.

The patient states he has tried calamine lotion and several emollients with minimal relief. He has not used any body washes or creams.

The patient has a remote history of intravenous drug use but has not used in the past year. Vital signs are within normal limits.

Examination reveals a **scaly rash over the chest, back, and legs**. A photograph of the rash is shown. A biopsy of one of these lesions exhibits clusters of **abundant lymphocytic cells with cerebriform nuclei** within the epidermis and dermis.

Which of the following is the most likely diagnosis?

- A. Contact dermatitis
- B. Bacillary angiomatosis
- C. Psoriasis
- D. Kaposi sarcoma
- E. Mycosis fungoides**



22) A 44-year-old man has noted a change in the appearance of his face over the past 7 months. On physical examination his facial skin is full of thick and red plaques. Microscopic examination of a punch biopsy from the plaques shows infiltration of epidermis by cerebriform neoplastic T lymphocytes that are CD4 positive. Which of the following is the most likely diagnosis?

- a. Hodgkin lymphoma.
- b. Mycosis fungoides. XXX
- c. Burkitt lymphoma.
- d. Acute lymphocytic leukemia.
- e. Marginal zone lymphoma.