Diagnose this: white lesions (the answer)

Part 1: case study
A 45-year-old, healthy man visited his dentist for tooth pain and was informed that his mouth contained a “disease in disguise.”

Upon oral examination, buccal mucosa showed hyperkeratotic white, slightly elevated, diffuse patchy lesion extending toward the commissures of the mouth on the left side.

The lesion was non-scrappable in nature.

The patient had a habit of smoking five to six bidis (a crude form of cigarette used in India) a day for the past four years.

1) What provisional diagnosis would you make of this lesion?
   a. Leukoplakia
   b. Linea alba
   c. Lichen planus
   d. Leukoedema
   e. Candidiasis

Answer: A provisional diagnosis of homogenous type of oral leukoplakia was made.

Now let’s explore step-by-step given the patient’s information and assemble all the clues together to arrive at a diagnosis.

Clue No. 1
Age/sex/general health = 45-year-old healthy man

2) Each of the lesions below is found in a patient that falls into this age/sex category. Match the lesion to the appropriate sex/general health category.

<table>
<thead>
<tr>
<th>Lesion</th>
<th>Sex/general health</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Candidiasis</td>
<td>1. Male predilection</td>
</tr>
<tr>
<td>b. Lichen Planus</td>
<td>2. Female predilection</td>
</tr>
<tr>
<td>c. Leukoedema</td>
<td>3. Commonly seen in a debilitating and malnourished group of society</td>
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Clue No. 2
Pattern = Hyperkeratotic white, slightly elevated, diffuse patchy lesion extending toward the commissures of the mouth.

5) Match the pattern to the appropriate lesion.
Pattern
a. Thin elevated white line at the occlusal plane
b. White patch or plaque (homogenous type)/mixed red and white lesion (non-homogenous type)
c. White “milky curd” (pseudomembranous type)/white patch or plaque (hypertrophic type)/red (atrophic type)
d. Milky white alterations of the buccal mucosa, bilateral

Lesions
1. Leukoplakia
2. Linea alba
3. Candidiasis
4. Lichen planus
5. Leukoedema

We can narrow down the various specific clinical types of the lesions and exclude linea alba from the differential diagnosis (D/D): a. Leukoplakia (homogenous type) b. Lichen planus (plaque type) c. Leukoedema d. Candidiasis (hypertrophic/pseudomembranous type)

Clue No. 5
Is the lesion scrapable (S) or non-scrapable (NS)?
4) Letters a–d are NS; letter e is S.

Answers
3) 1 = b; 2 = a; 3 = c; 4 = e; 5 = d

Pattern

Treatment and prognosis
8) Mark true (T) or false (F) next to the following statements.
a) For the persistent lesion, definitive diagnosis is established by tissue biopsy.
b) Definitive treatment involves surgical excision or cryosurgery and laser ablation. Total excision is aggressively recommended when microscopic dysplasia is identified, particularly if the dysplasia is classified as severe or moderate.
c) Non-homogeneous lesions carry a lesser risk of malignant transformation than homogeneous lesions.
d) It has a variable behavioral pattern but with an assessable tendency to malignant transformation.

Histology assessment
7) Mark true (T) or false (F) next to the following statements.
a) It may show atrophy or hyperplasia (acanthosis) and may or may not demonstrate epithelial dysplasia.
b) The majority of leukoplakias will not show dysplasia and correspond to the hyperplasia category.
c) The dysplastic changes typically begin in the superficial zones of the epithelium.
d) The higher the extent of epithelial involvement, the higher the grade of dysplasia.