

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

Prevalence of oral manifestations in patients with lupus erythematosus in a sample of Egyptian population, a hospital-based cross-sectional study

Acknowledgment

**INTRODUCTION and
REVIEW OF LITERATURE**

WHO digital manual for the early diagnosis of oral neoplasia (2008)

International Agency for Research on Cancer



Screening Group

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A digital manual for the early diagnosis of oral neoplasia

edited by Ramadas K., Lucas E., Thomas G., Mathew B., Balan A., Thara S., Sankaranarayanan R.

A digital manual for the early diagnosis of oral neoplasia

Lupus erythematosus 

Oral neoplasia list

Oral precancerous conditions

Oral lichen planus (OLP)

Oral submucous fibrosis (OSF)

Lupus erythematosus

Xeroderma pigmentosum

Sideropenic dysphagia

Epidermolysis bullosa

Dyskeratosis congenita

Malignant transformation of oral lesions

The prevalence of mucosal involvement in LE patients is debatable. Some authors suggest that oral lesions are reported in 9–45% of LE patients (Lourenço et al. 2007).

Lupus Erythematosus

Cutaneous Lupus Erythematosus

(CLE)

Systemic Lupus Erythematosus

(SLE)

Cutaneous Lupus Erythematosus

How is CLE currently classified?



**Acute cutaneous LE
(ACLE),**

**Subacute cutaneous LE
(SCLE),**

**Chronic cutaneous LE
(CCLE).**

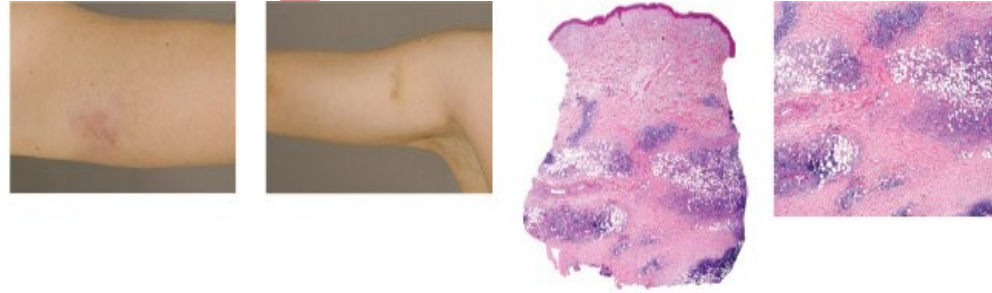
CCLE encompasses

Discoid LE (DLE)

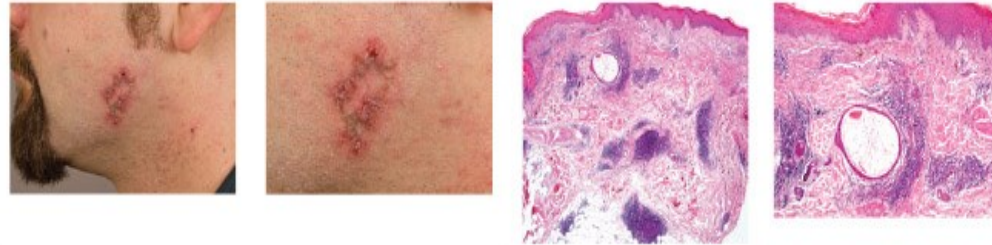
LE profundus (LEP)

chilblain LE (CHLE)

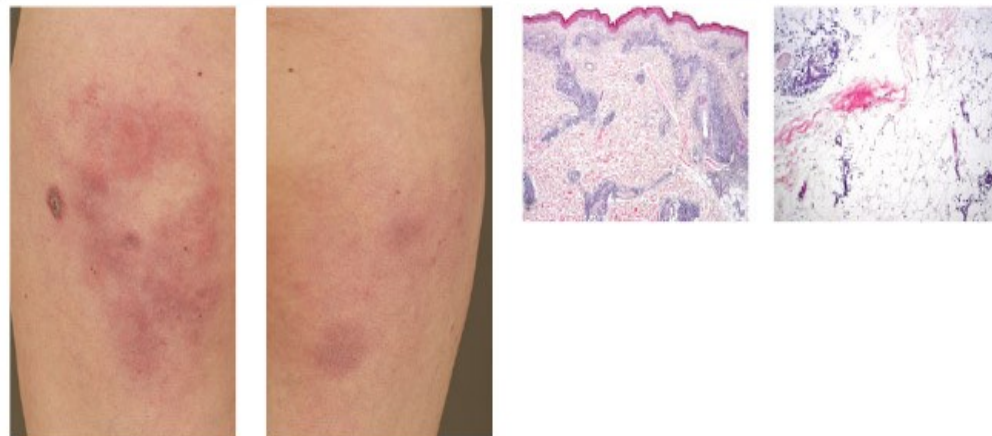
LE tumidus (LET)



Lupus profundus in limited cutaneous LE



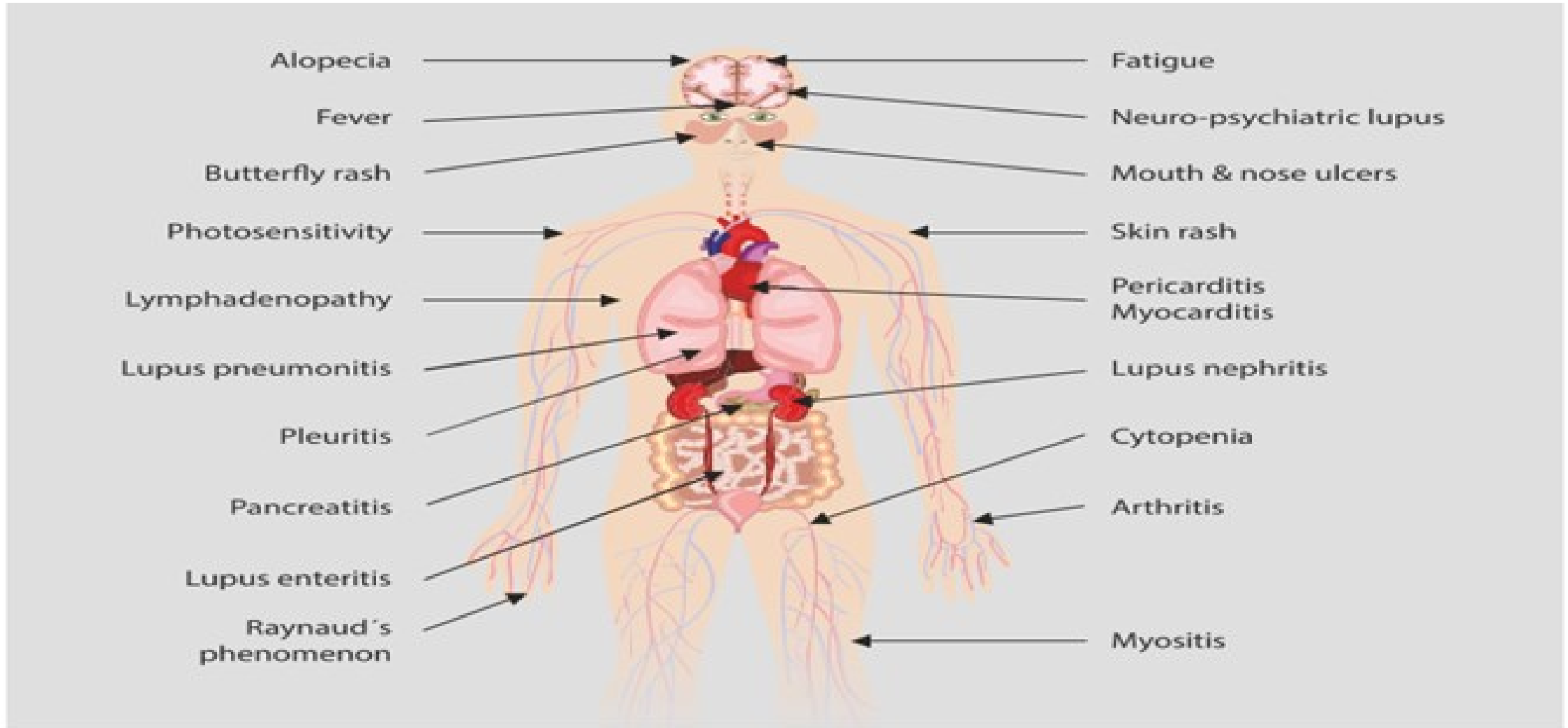
CDLE with subcutaneous involvement in limited cutaneous LE



Lupus tumidus with subcutaneous involvement in limited cutaneous LE

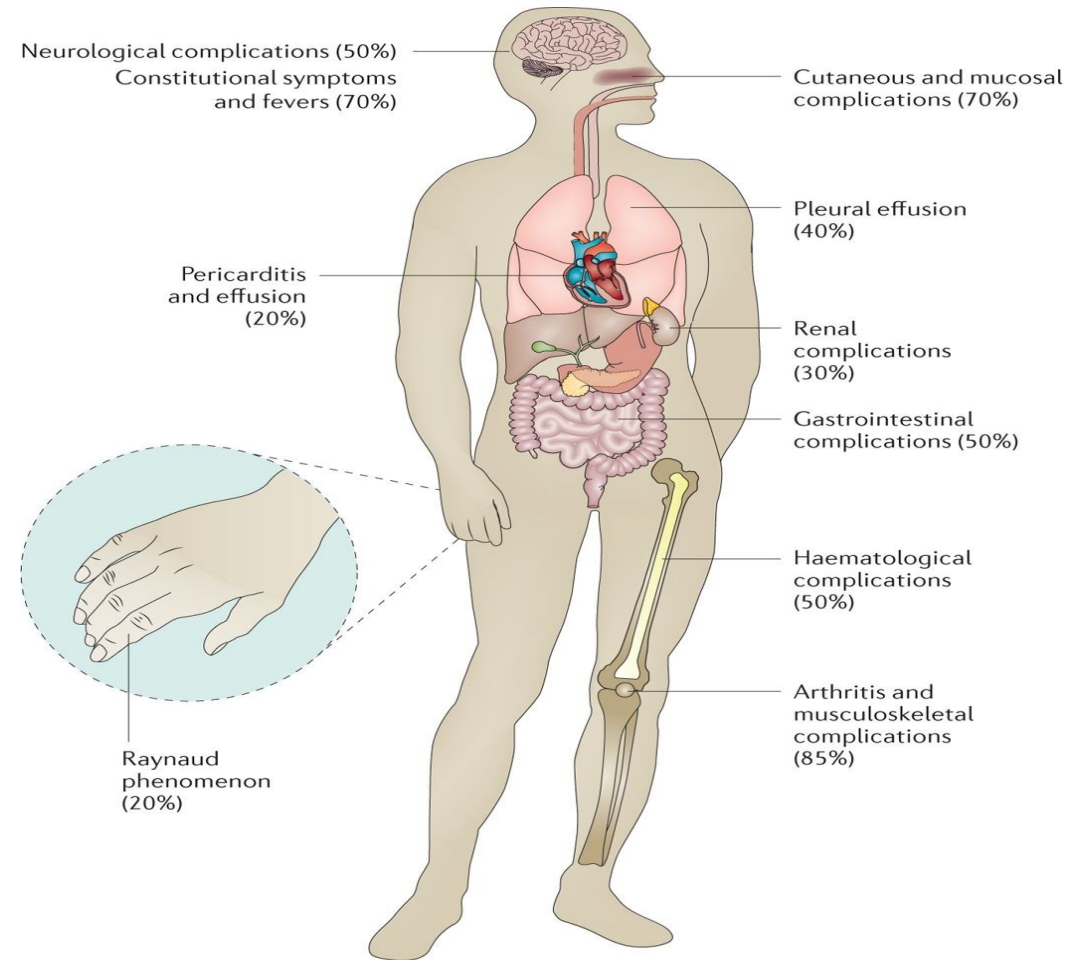
Systemic lupus erythematosus

Systemic lupus erythematosus



Clinical manifestations

- **Fatigue, fever , weight loss**
- **Butterfly rash, photosensitivity rash, mucous membrane lesion, alopecia,**
- **urticaria, vasculitis**



Okon L. G et al (2013).

Nature Reviews | **Disease Primers**

The relationship between CLE and SLE

CLE may undergo flares

Mild to moderate flare: oral ulcer, pluralities, fever, rash.

Severe flare: major organ involvement: central nervous system

Lupus Erythematosus diagnostic criteria

There are two different sets of classification criteria for SLE:

**Systemic Lupus
International
Collaborative Clinics
criteria (SLICC
criteria)**

**American College of
Rheumatology (ACR)
criteria**

Extra oral manifestation of LE

Malar rash or butterfly erythema

Temporomandibular Joint Involvement in SLE

Trigeminal Neuralgia in LE patients

Oral manifestation of lupus patients

red
macula

plaque

ulcerations

white
lesions

keratotic
striae

The frequent site of the oral lesions

buccal
mucosa

hard
palate

lower lips

tongue

gingiva

Periodontal disease (PD)

- Relationship exist between periodontal status and SLE activity

Candida albicans infection

- The immune system dysregulation plays a vital role in candida infection.

AIM OF THE STUDY

AIM OF THE STUDY

The present cross-sectional study was performed to assess the prevalence of oral manifestations in LE patients in a sample of the Egyptian population

Patients attending the in Internal Medicine department, clinic in EL Qasr EL Ainy hospital - Cairo University

Aiming that the present study can serve as a baseline for studies with a further goal of finding ways to improve oral health and increase awareness of lupus erythematosus disease in Egypt

MATERIAL & METHODS

The study was held in the Internal Medicine department, rheumatology clinic in EL Qasr EL Ainy hospital - Cairo University.

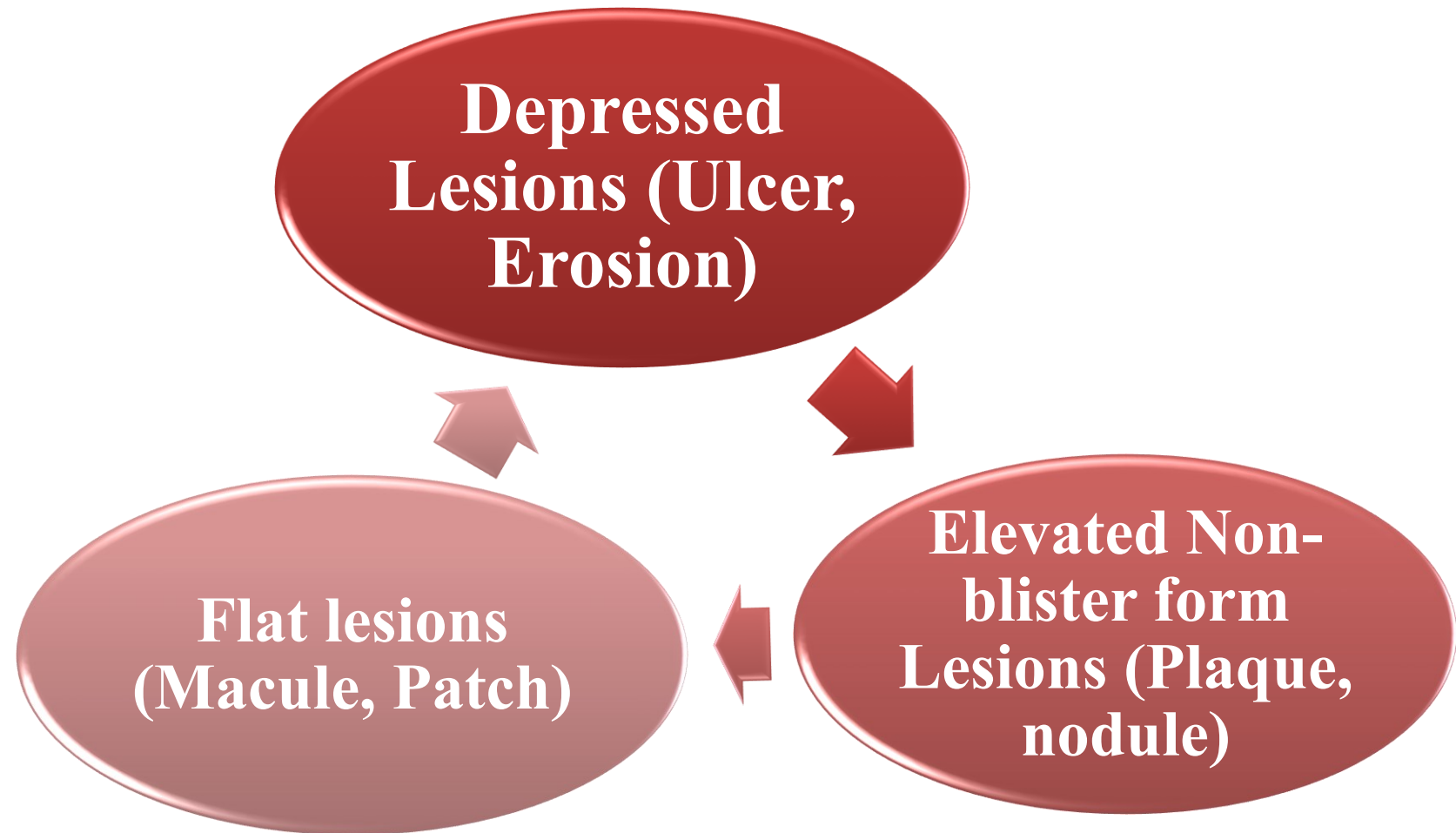
- Hospital data collection starts from **March 2019 till March 2020**
- **189 patients** with lupus erythematosus were examined to assess the prevalence of oral manifestations.
- For each eligible participant, a full history was obtained through an interview between the investigator and the patient. **Demographical data** included patients' age, sex.
- All participants were asked to sign a study-related **informed consent**.

- The clinical examination of the oral manifestation was recorded by **conventional oral examination (COE)** according to the WHO guide for physical examination of the oral cavity (Ramadas et al., 2008.).

LE patients who have oral manifestation as positive (TP)

LE patients without oral manifestation as negative (TN).

The lesions were interpreted according to their clinical aspects to



(Michael et al., 2018).

The lesions were interpreted according to their sites in the oral cavity

Tongue,
Lips

Palate

Buccal
mucosa

Gingiva

Corner of
the mouth

Eligibility criteria and selection methods

Inclusion Criteria

Patients recently diagnosed with LE based on ACR criteria. (Tiao et al. 2016)

Age: 18- 70 years old.

Both genders were included.

Exclusion Criteria

Patients suffering from any other systemic diseases.

Patients received any previous therapy for lupus erythematosus.

Patients on drug therapy that may have oral mucosal manifestations.

Inflammatory diseases, malignancy, or recent surgery were excluded

Outcomes

Primary outcome

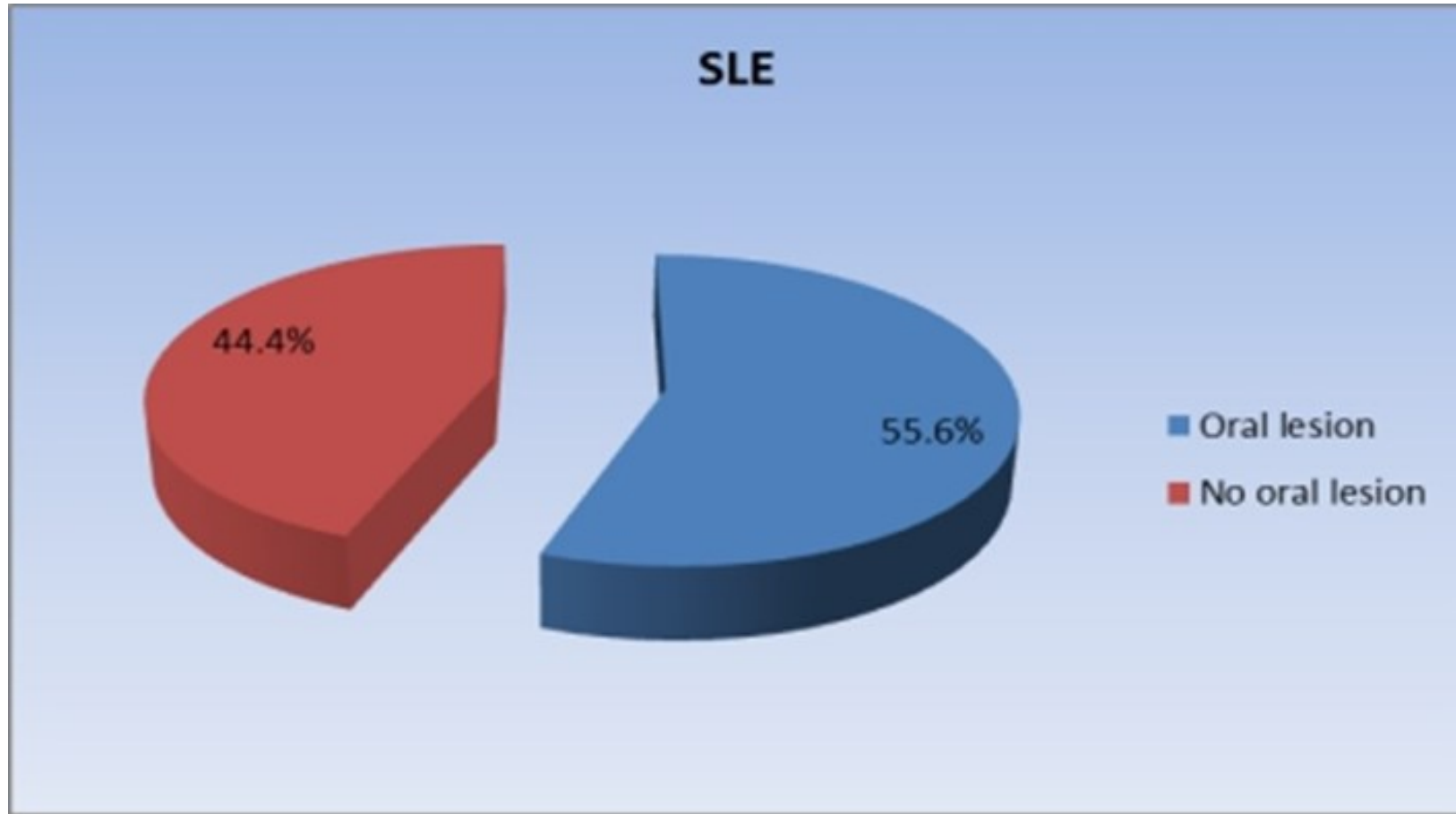
- Prevalence of intraoral manifestations.
- As ulcer erythema, white plaque, spots, or white striae with a radiating orientation.

Secondary outcome

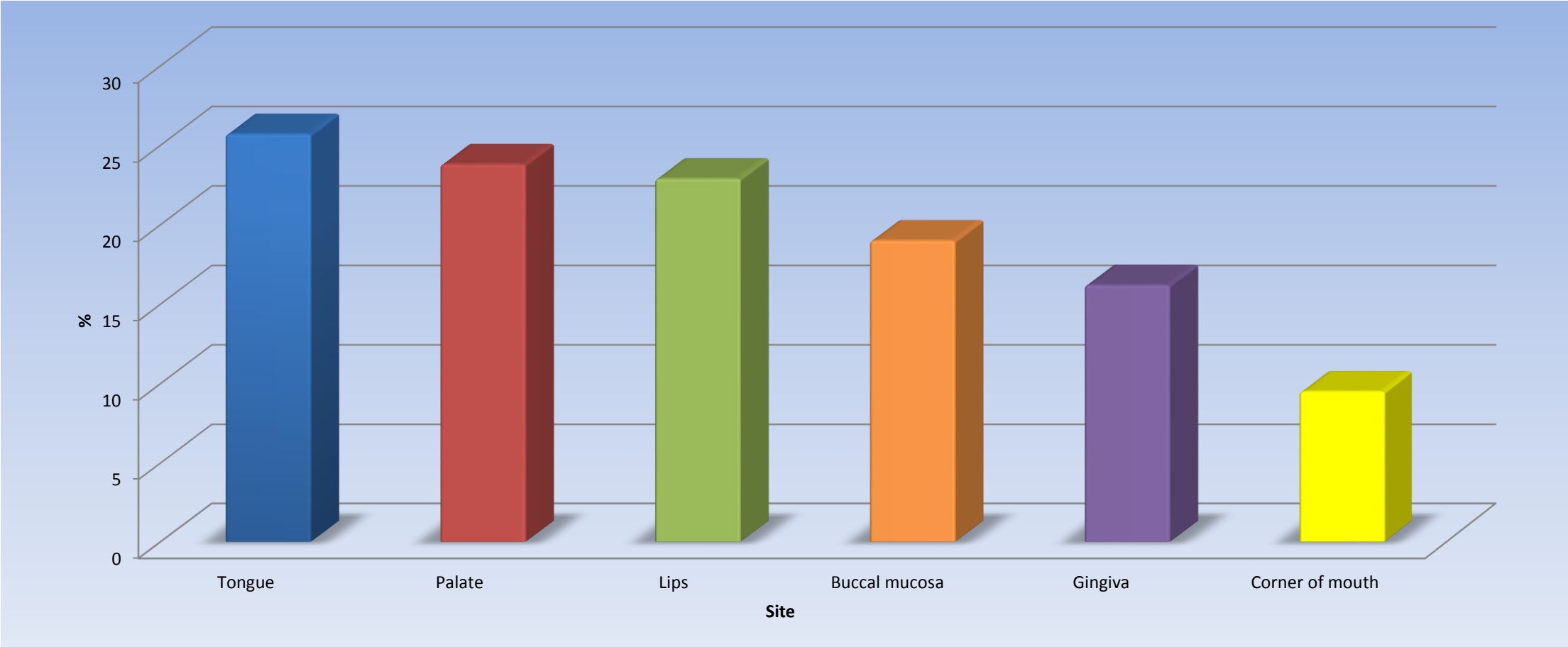
- Extraoral and perioral finding
- Malar rash, photosensitive dermatitis, generalized maculopapular rash, discoid rash

RESULTS

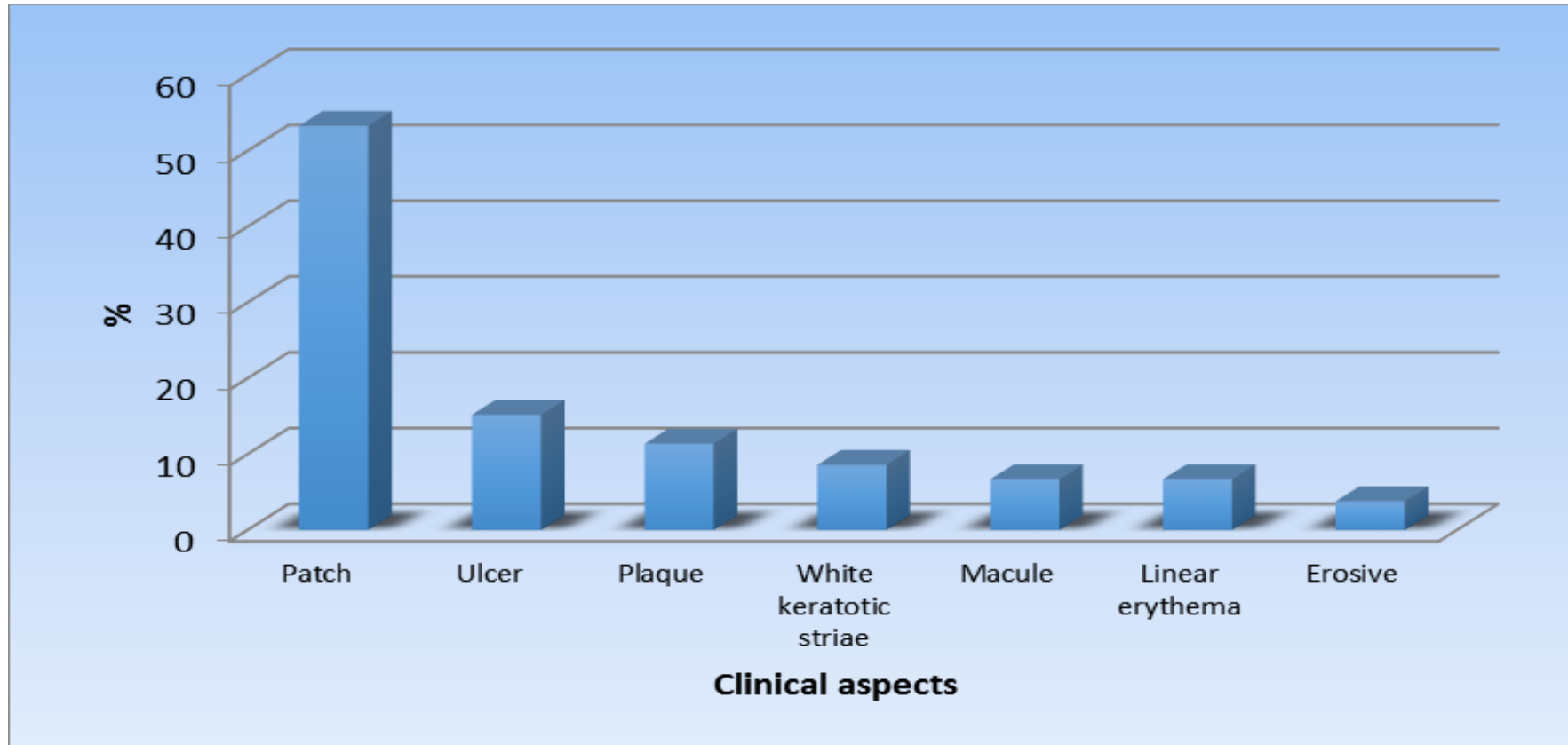
The prevalence of oral lesions among SLE patients was 55.6% (105/189 patients).



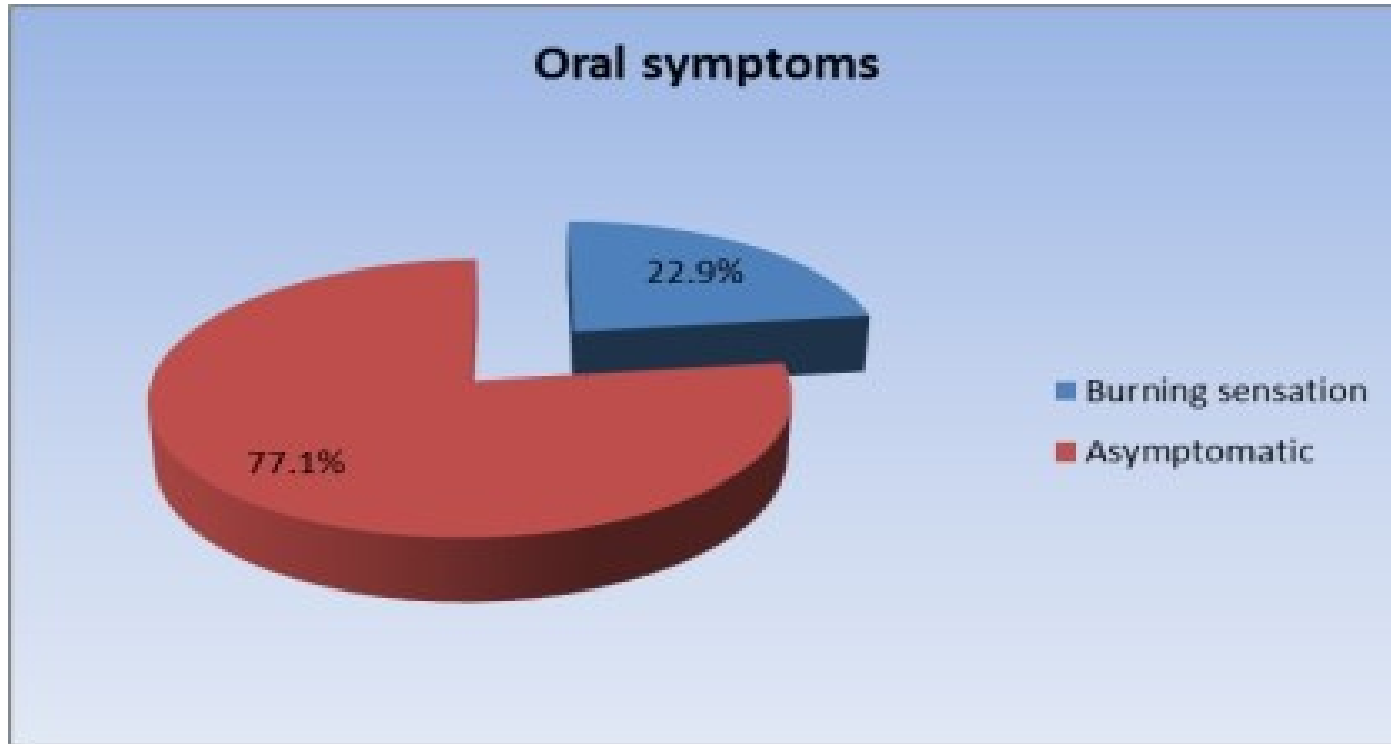
Descriptive statistics for sites of oral lesions in the study participants



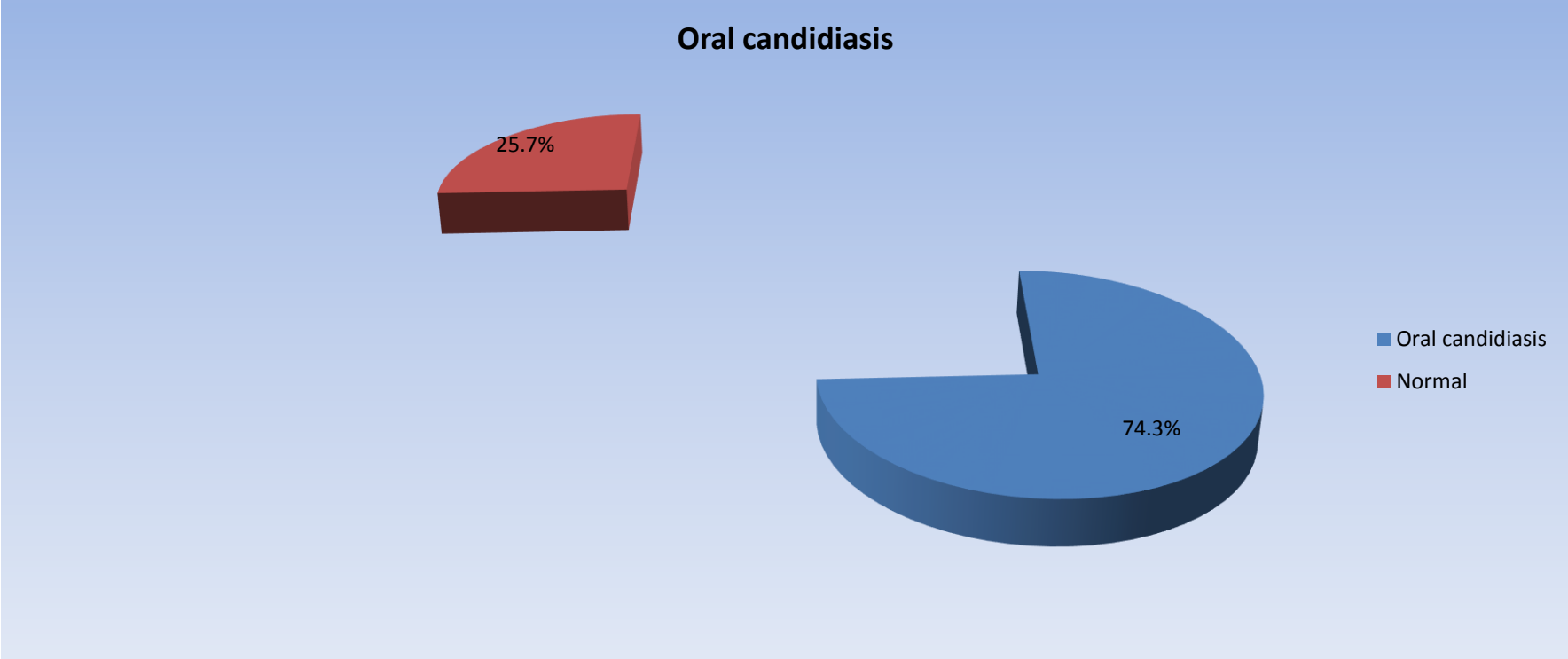
Descriptive statistics for sites of clinical aspects of oral lesions in the study participants



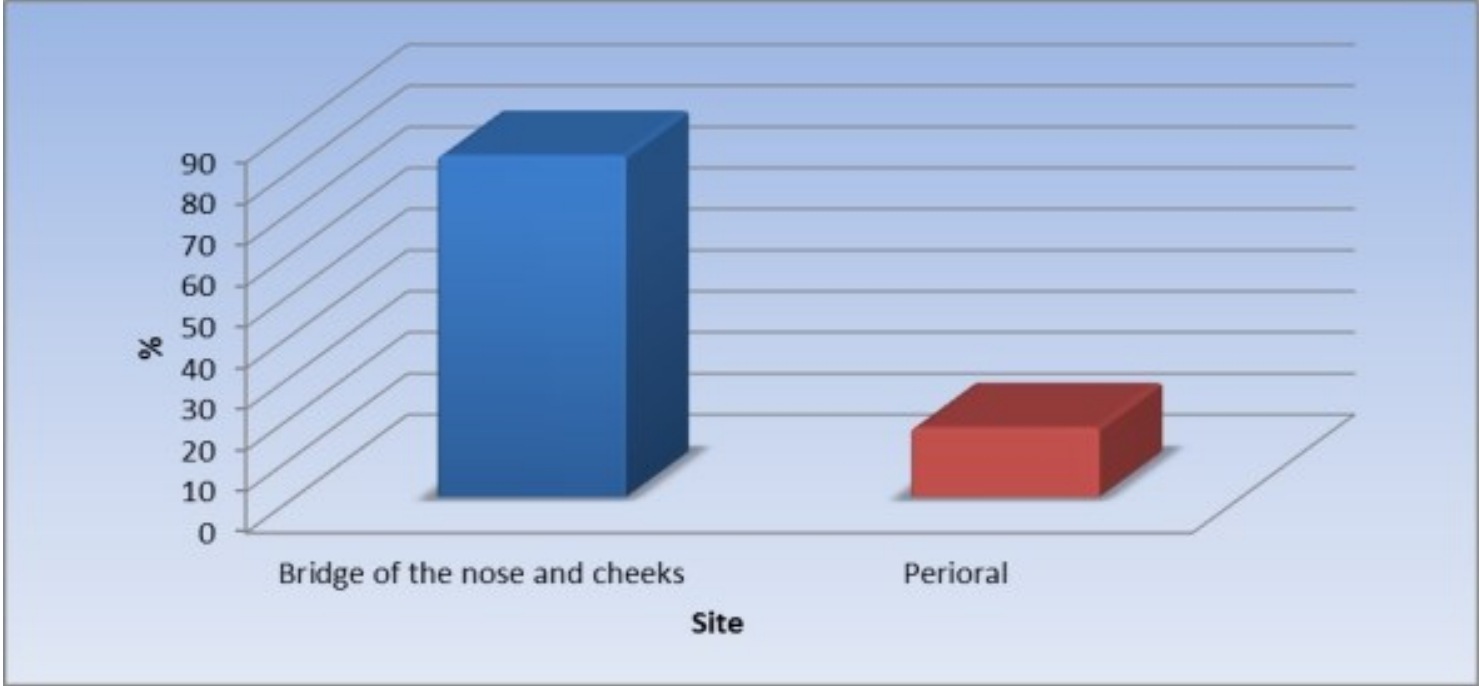
Twenty four patients (22.9%) had a burning sensation while 81 patients (77.1%) were asymptomatic.



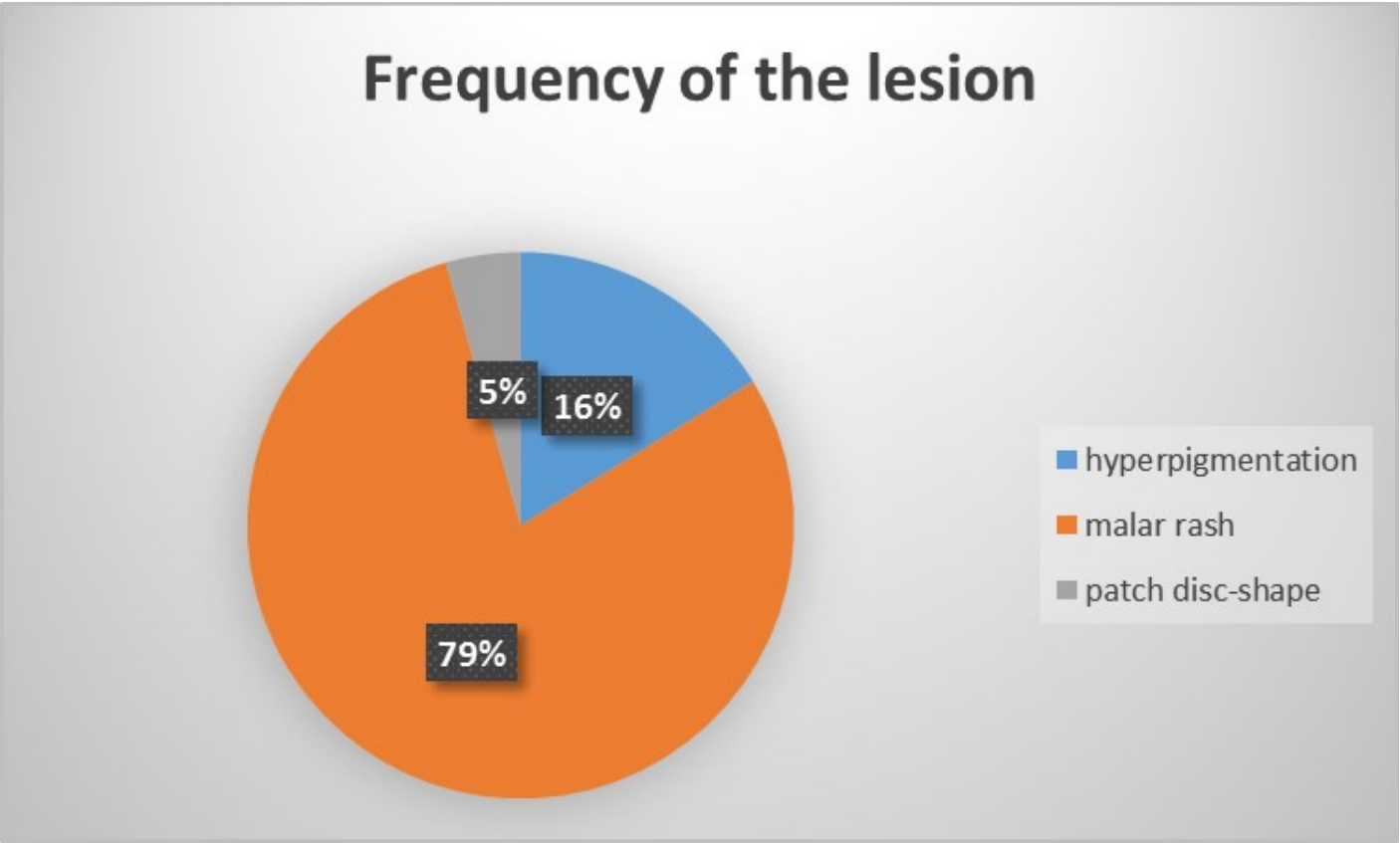
Seventy-eight out of 105 patients (74.3%) had oral candidiasis



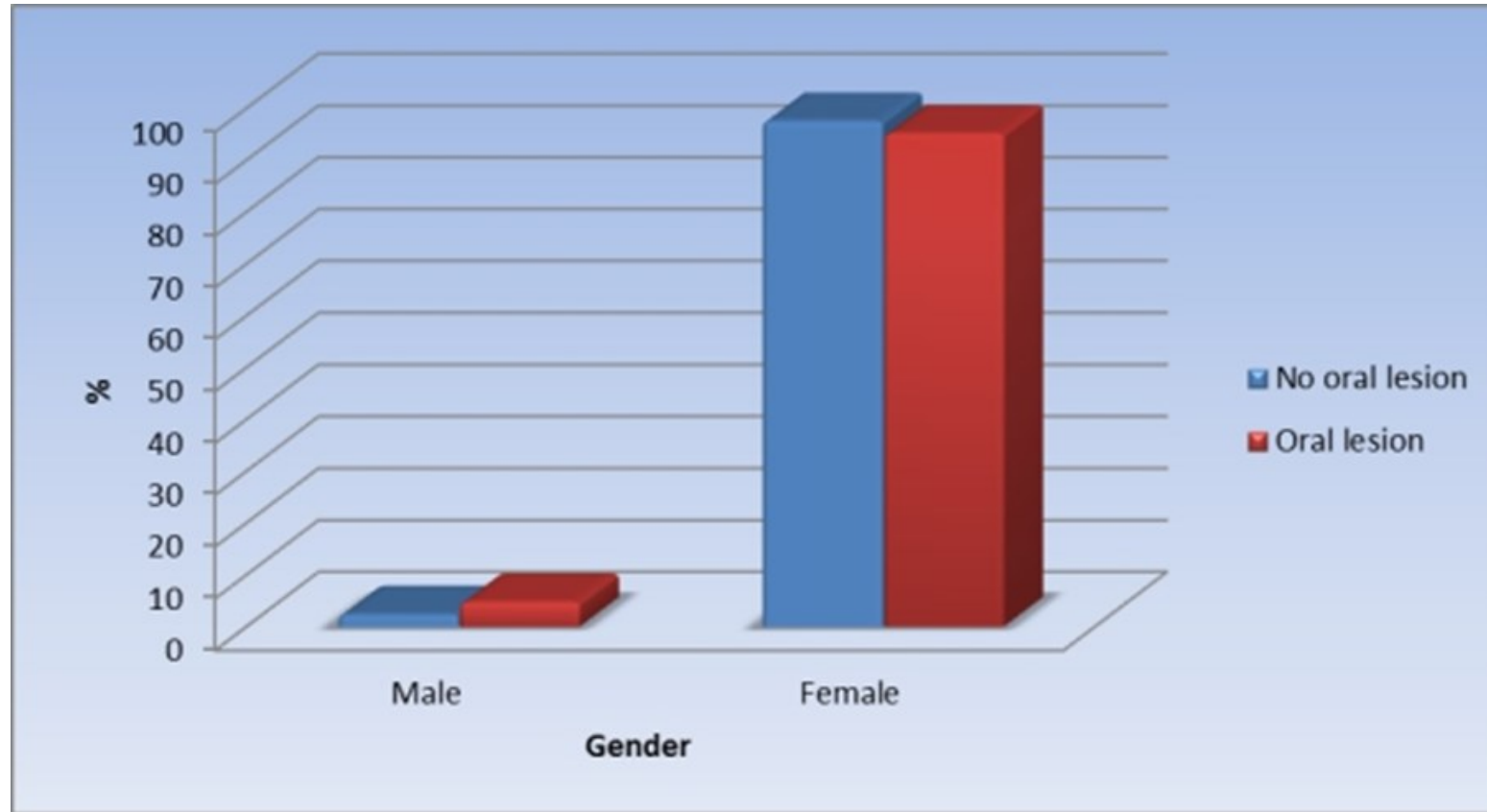
Descriptive statistics for sites of skin lesions in the study participants (n = 71)



Descriptive statistics for the description of skin lesions in the study participants

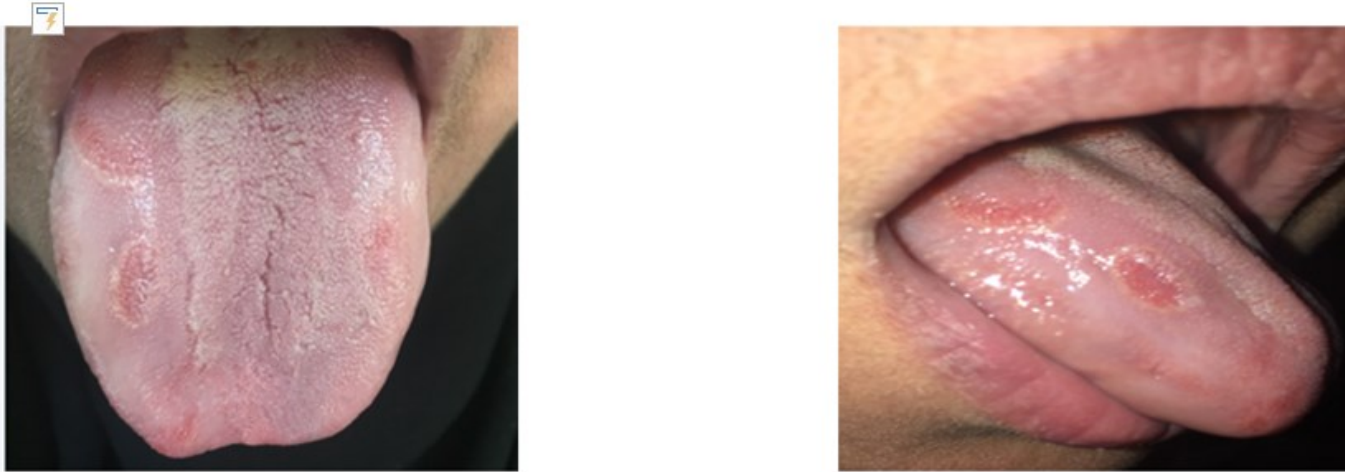


Gender distributions among patients with and without oral lesion



Clinical finding

Intraoral manifestations



(Figure 18) Red, round, discretely atrophic patches

Round, discrete plaques on the tongue surface



Intraoral lesions of the buccal mucosa showing multiple white keratotic striae



Central erythema with red macules



Raised keratotic plaques



Oral candidiasis in lupus patients



Malar rash (butterfly rash)



Skin lesions showing disc-like, erythematous, scaly plaques



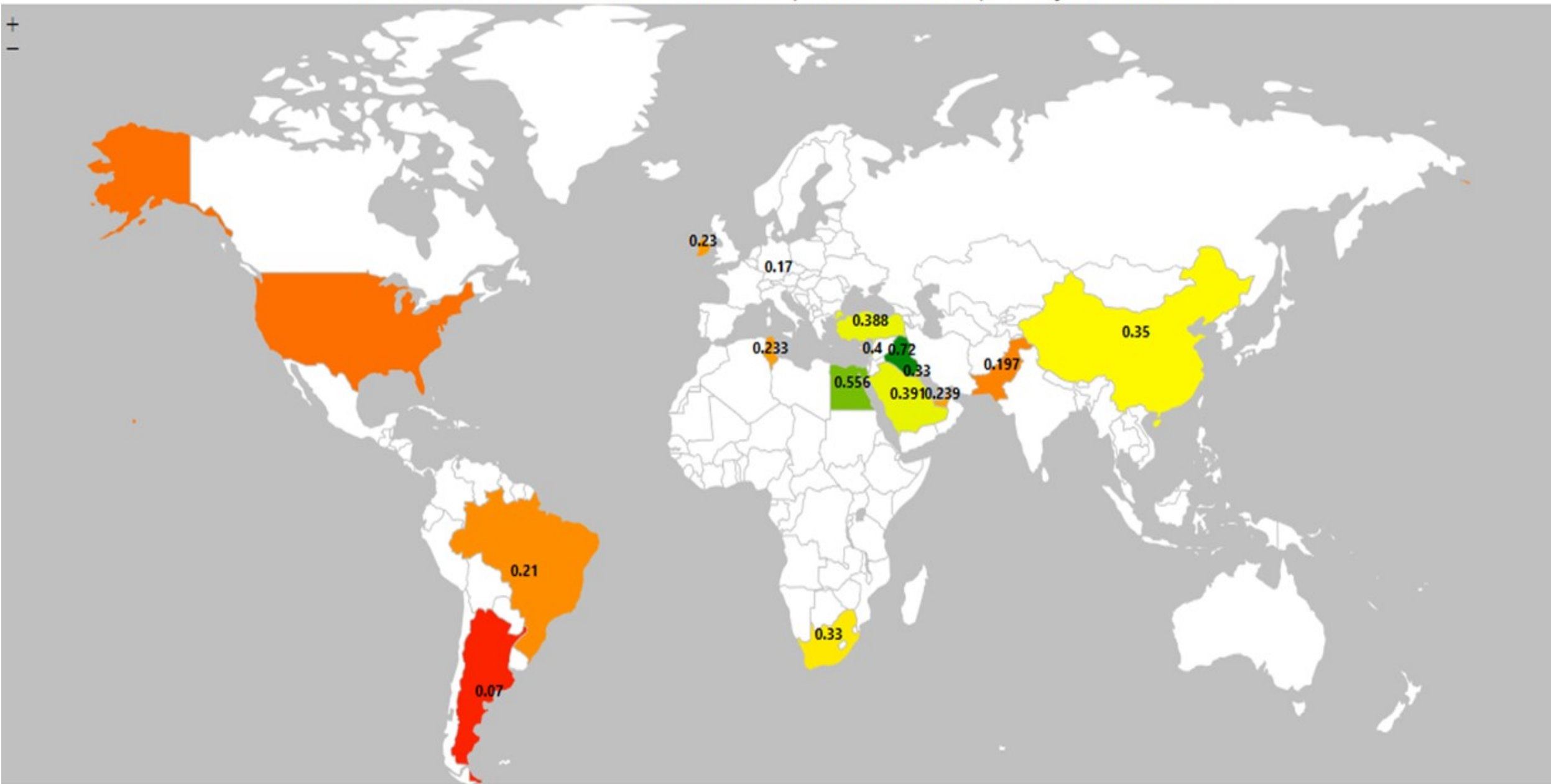
DISCUSSION

The prevalence of mucosal involvement in LE patients is debatable

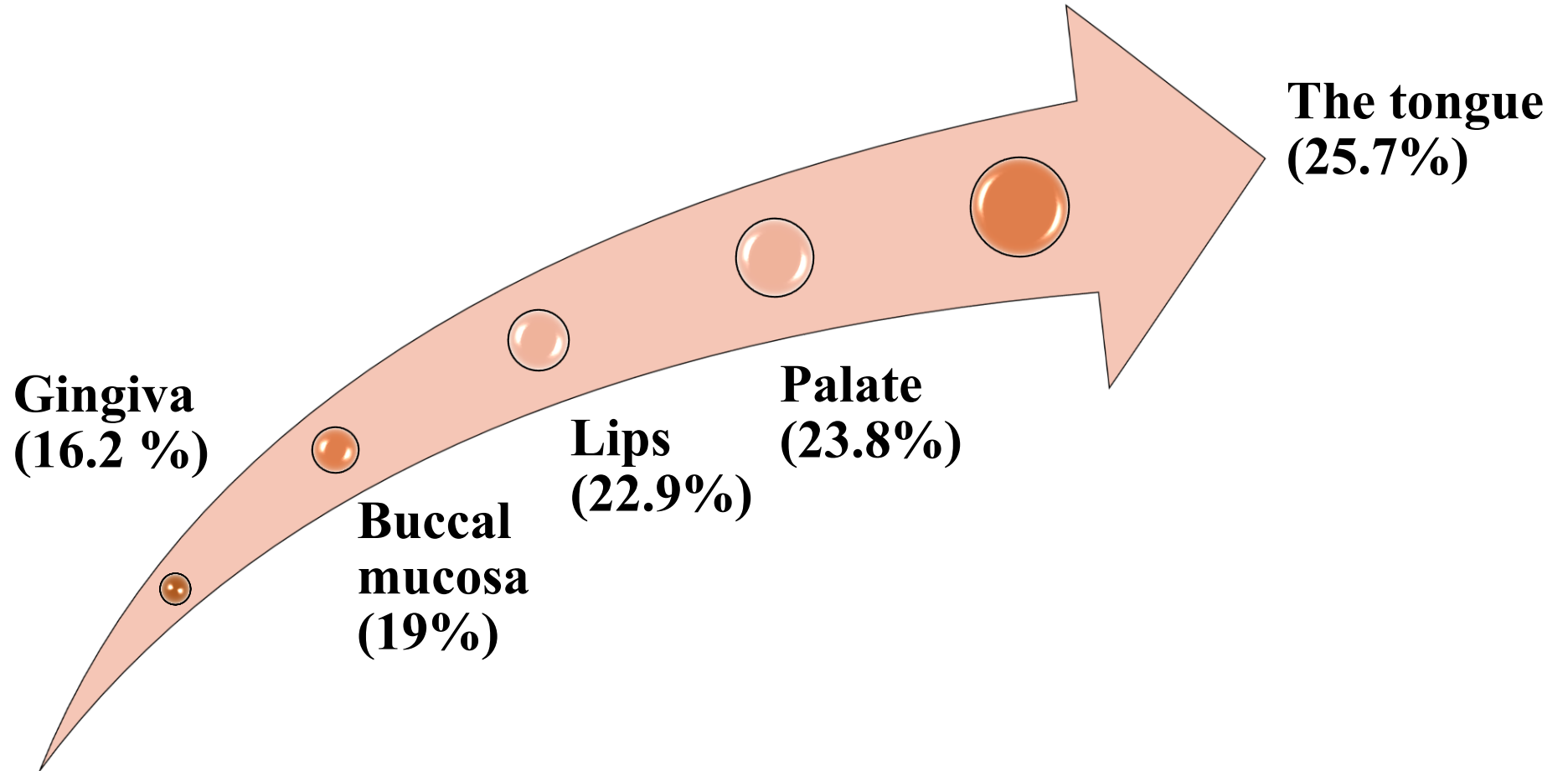




Prevalence of oral manifestations in patients with lupus erythematosus



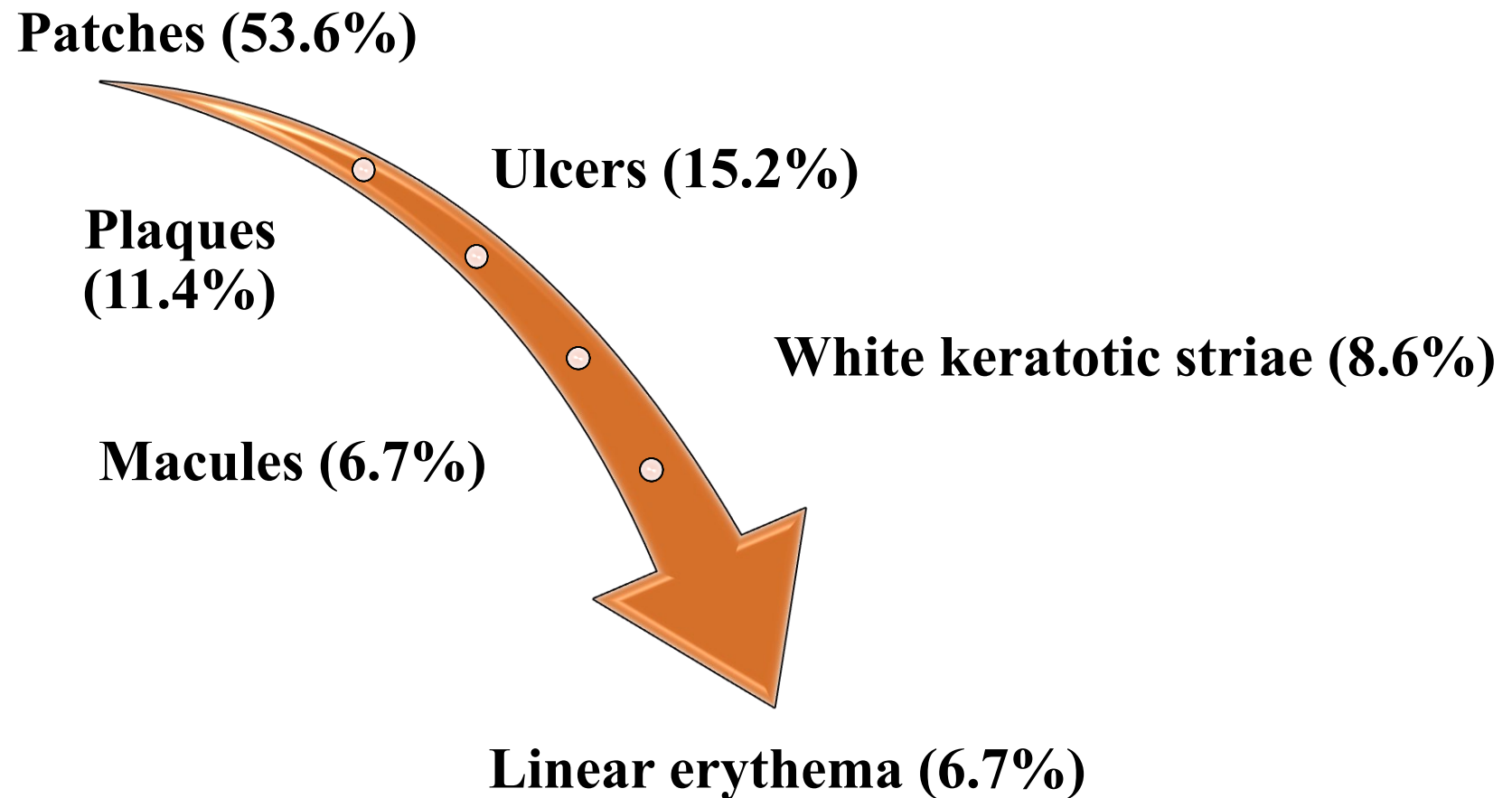
Descending order of the frequently affected locations



Khatibi et al., 2012
the most commonly
affected areas were
Buccal mucosa
Lips

Lourenço et al., 2007
the locations more
frequently affected were
Buccal mucosa
Hard palate
Lips

Barrio et al., 2020 considered the erythematous patches as clinical descriptions of oral lupus lesions

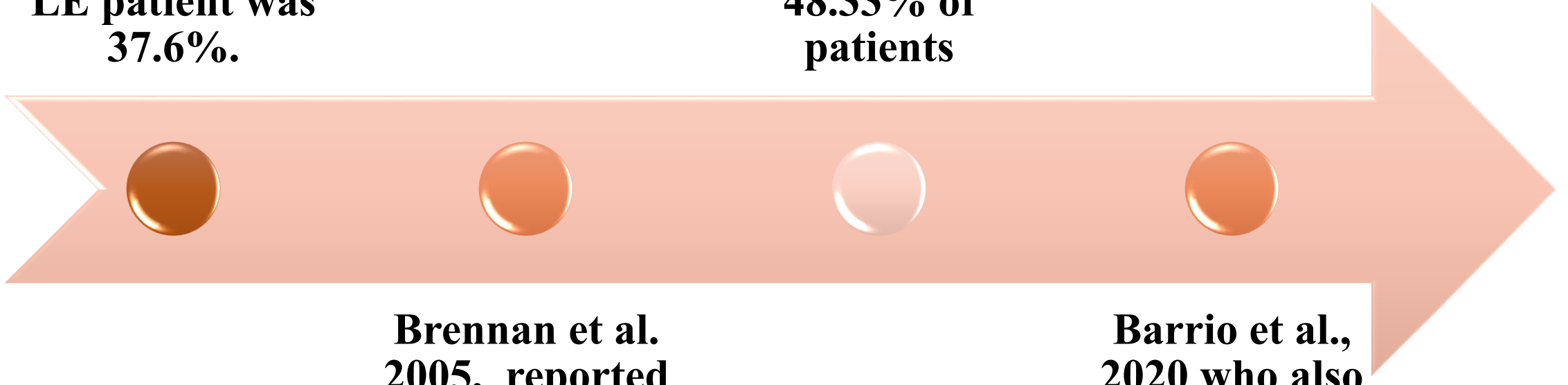


The prevalence of the cutaneous lesions in the LE patient was 37.6%.

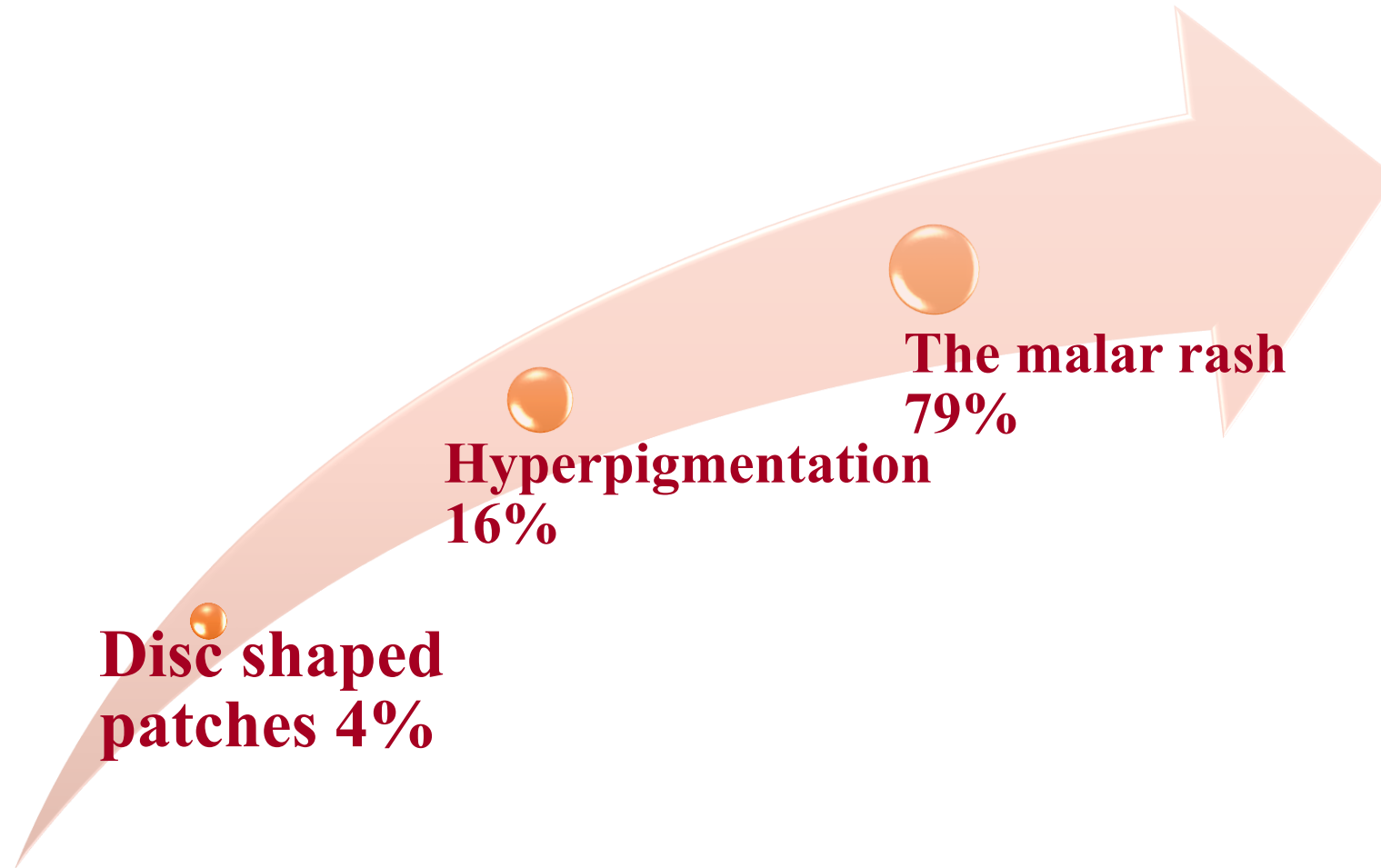
Das et al., 2011 who found that skin lesions were shown in 48.33% of patients

Brennan et al. 2005, reported that 33% to 67% of SLE patients

Barrio et al., 2020 who also found that 45.3%



The cutaneous lesions



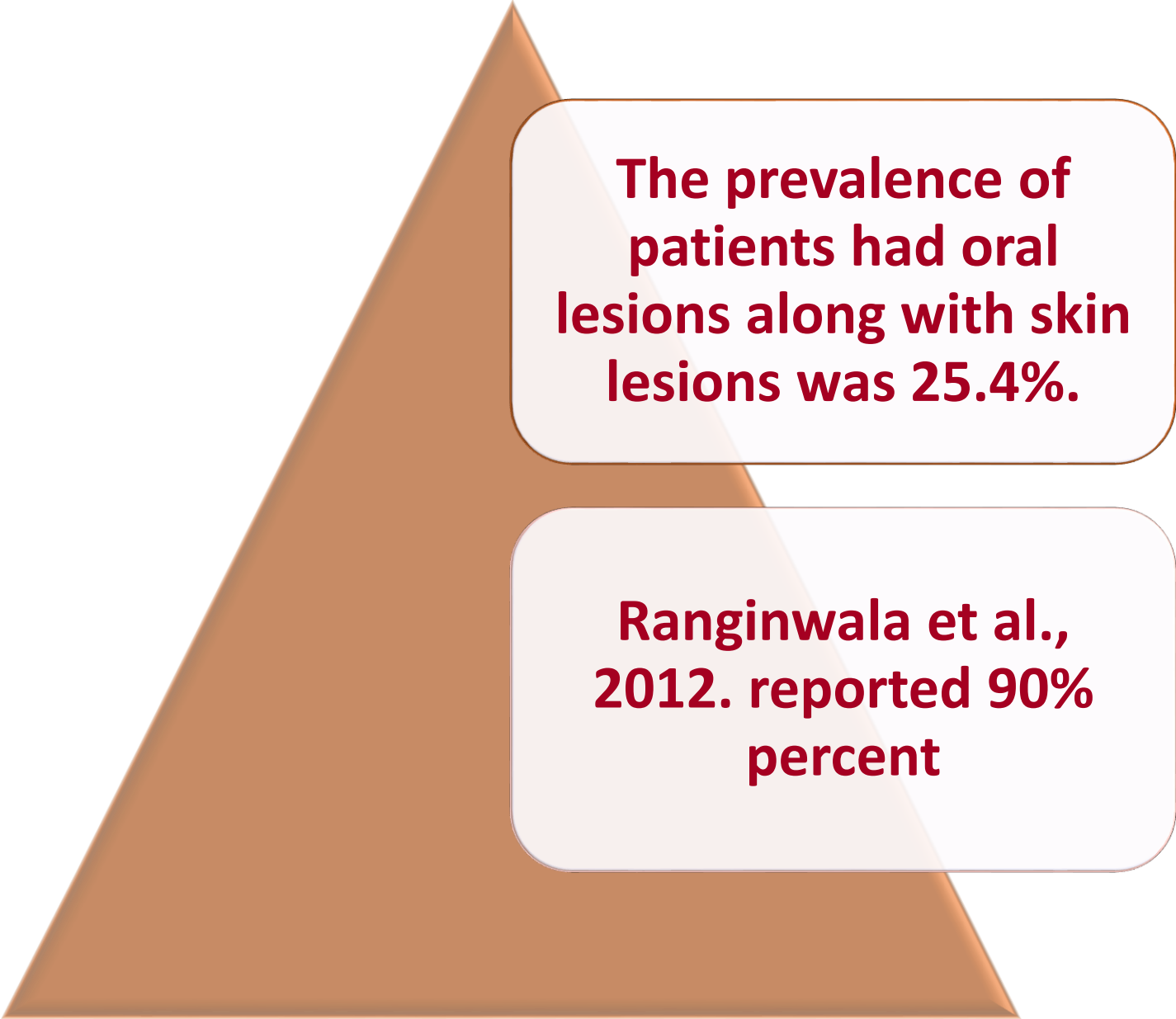
The cutaneous lesions

The malar rash 73%
(Khan et al., 2017)



Hyperpigmentation 16%
(Kuhn, et al. 2007)

Disc shaped patches
(Sreejan et al. 2009)



The prevalence of patients had oral lesions along with skin lesions was 25.4%.

Ranginwala et al., 2012. reported 90% percent

CONCLUSION

The prevalence of oral manifestations of LE among a sample of Egyptian patients attending the Internal Medicine Department in Kasr Al Ainy Hospital was 55.6%

The most commonly affected site was **the tongue** and most of the oral manifestations were asymptomatic

RECOMMENDATIONS

Further studies are recommended to be done on larger sample size and at different intervals.

Further studies are suggested to be conducted in different locations in order to compare the results and to broaden their findings.

Thank you