

# Making sense of mouth ulceration: part one

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## Introduction

Ulceration is a localised defect of the surface in which the covering epithelium is destroyed, leaving an inflamed area of exposed connective tissue often with a fibrinous exudate.

Oral ulceration is simply a break in continuity of the oral epithelium. Ulceration, however, is not a disease per se; it can have many causes but without establishing the cause, treatment is very empirical.

Mouth ulceration has a wide-ranging aetiology. Most oral ulcers are of local cause. However, some oral ulcers may have a systemic basis and may herald systemic disease. Indeed, most life-threatening oral disease – such as cancer, pemphigus, tuberculosis – manifests as chronic ulceration.

The physician William Osler (1849-1919) stated: 'Listen to the patient – he is telling you the diagnosis' and, eons later, the history remains the cornerstone to diagnosis. This is especially true of ulceration, where the clinical appearance of an ulcer on its own is rarely diagnostic.

In the light of multiple causes, some systematic way of dealing with ulceration is needed, such as the system (Scully, 2012) of splitting causes into:

- Systemic
- Malignancy
- Local
- Aphthae
- Drugs.

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A ready way to recall this list is by the mnemonic (Figure 1):

- So
- Many
- Laws
- And
- Directives.

## The systemic group

The systemic group includes:

- Blood disorders
- Infections
- Gastrointestinal disorders
- Skin disorders.

This list can be memorised as BIGS.

In order to identify relevant aspects, the history should elicit

- Ulceration (first episode, duration, persistent or recurrent, single or multiple)
- Extraoral lesions.

In addition:

- Genetics (family history)
- Social
- Pets
- Occupation
- Travel
- Medical
- Eating
- Drugs
- Respiratory

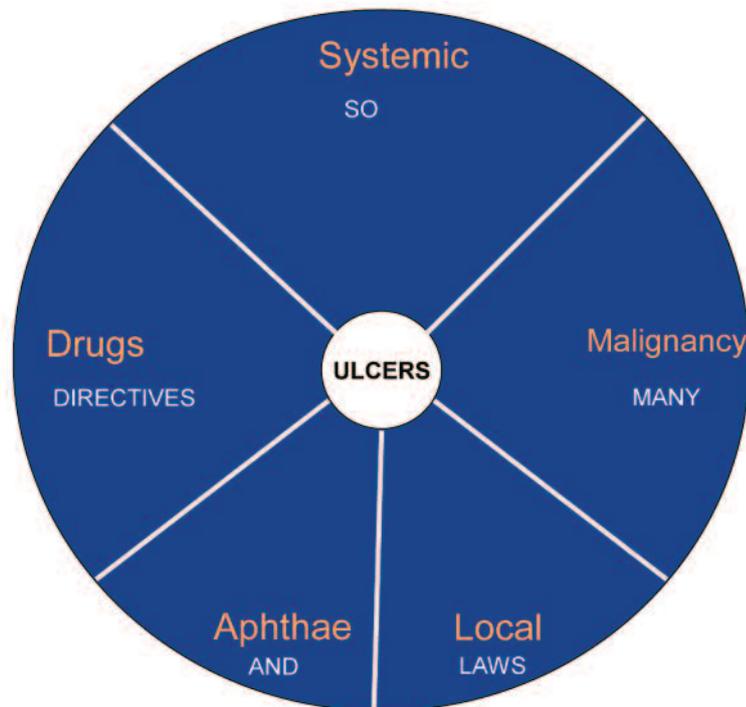


Figure 1: Causes of ulceration.

- Anogenital
- Gastrointestinal
- Eyes
- Skin.

It can help to memorise this huge list as GSPOT, MED, RAGES.

The history, though crucial, must always be followed by a careful extraoral and intraoral examination in a good light. Extraorally, be sure to examine the face, neck, hands and nails, at the least, as these very occasionally gives an instant diagnosis (Figure 2).

It is particularly important to detect any immediately life-threatening lesions, such as PIC:

- Pemphigus
- Infections (HIV/AIDS, syphilis, tuberculosis)
- Cancers (squamous, others).

Cancer will be considered later in this series, but RULE is an acronym that focuses on lesions that are single and persist for more than three weeks, including:

- Red and/or white
- Ulcer
- Lump
- Especially combinations of the above.

It is crucial to investigate (and usually arrange biopsy) for any single lesion of more than three weeks duration.

It is important also to detect any potentially malignant

disorders such as erythroplakia, leukoplakia, lichen planus/lichenoid lesions or submucous fibrosis, although ulceration is uncommonly a feature except in lichen planus.

In these cases, referral for a specialist opinion may be in order.

### Time to refer

Referral indications include a:

- Complicated or serious diagnosis (especially cancer, HIV infection, pemphigus, Behçet syndrome)
- Doubtful diagnosis
- Patient who has extraoral lesions or other indications of possible systemic disease
- Situation where investigations are required, but not possible or appropriate to carry out in general practice
- Situation where therapy may not be straightforward and may require potent agents
- Situation where drug use needs to be monitored with laboratory or other testing (eg, for liver functional disturbances)
- Patient who needs access to an informed opinion or care outside normal working hours.

Urgent referrals are indicated for some present or suspected mucosal lesions:

- Single lesions lasting more than three weeks
- Potentially malignant disorders
- Lesions in immunocompromised patients



**Figure 2: Chickenpox with mouth ulcers.**

- Single intractable or debilitating ulcerations
- Vesiculobullous disorders

And if these lesions are accompanied by:

- Orofacial sensation disorder or movement loss
- Pain – acute, severe or suspected to be trigeminal neuralgia
- Severe anxiety or depression
- Acute or enlarging swellings – including salivary.

Referral details needed include the:

- Referral urgency (real or perceived by clinician or patient)
- Reason for referral
- Provisional diagnosis
- Treatment already offered
- Relevant medical, dental and social history
- Findings.

Personal details needed include:

- The patient's last name; first name(s); date of birth; full address and contact number, facsimile and email where possible; primary care medical practitioner's name, address and telephone, facsimile and email
- The referring clinician's name, address, telephone, facsimile and email
- Any special needs, such as transport or translator.

## References

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## Disclosure

This article series offers a brief synopsis of the diagnosis and management of mouth ulceration – a complex topic that includes common disorders, and less common but life-threatening conditions. It does not purport to be comprehensive, and the series may include some illustrations from books written or co-authored by the author and colleagues from UK and overseas, published by Elsevier-Churchill Livingstone, Wiley-Blackwell, or Informa/Taylor & Francis – all of whose cooperation is acknowledged and appreciated.

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