Diagnostic Detectives:
Catching common culprits and spotting a mimic in Oral Medicine, Oral Radiology and Oral Pathology

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Who is your detective alter ego?

You see something
You think you know what it means
You can’t make sense of it
You understand it

Outline
Profiling to catch a culprit
Collecting the evidence
Cases
The usual suspects vs. the mimics

Profiling to catch a culprit
Interrogating the witness
key questions (history of CC)
know your witness (medical and social history)
photographic evidence?
surveying the scene of the “crime”

Key questions
History of abnormality
symptoms
duration
changes over time
attempted treatment
Getting to know your witness

Medical history
medications (Rx or not)
oral, topical, injectable, puffer
previous use may be important
steroids/immunosuppressants, bisphosphonates, chemotherapy

Getting to know your witness

Medical history
allergies, hospitalizations, surgery
review of systems
family history
autoimmune, cancer

Getting to know your witness

Social history
age and gender-identity
alcohol, tobacco and drug use
psychiatric disorders

Sometimes it is a random act of abnormality

An incidental finding
A lesion without specific patient factors

Photographic evidence
“selfies” or cell phone pictures
images from referral
sending radiographs

Surveying the scene of the “crime”

Don’t zone in, look for more clues or related “crimes”

Take a moment to examine the whole scene

Complete clinical exam
Assess radiographs beyond area of interest
Collect your evidence

Clinical examination of the lesion
record all clinical features
Radiologic examination
Additional imaging
Biopsy
Referral

Cases

What caught your eye?
What is the common culprit (dx) that comes to mind?
things you are familiar with
things you’ve seen before
Is there any evidence (signs) that doesn’t fit

Black/brown spot

Usual suspect
melanotic macule
physiologic pigmentation
Mimics
amalgam tattoo
nevi
drug induced pigmentation
melanoma

Single black spot

Usual suspects
RO/granuloma
Mimics
Cysts
Stafne bone defect
Malignancy

Wart

Usual suspect
Squamous papilloma
Mimics
Condyloma
SCC/malignancy
Black spots...more than 1

Usual suspects
periapical/periodontal disease

Mimics
Periapical osseous dysplasia
Multiple cysts
Malignancy

Ulcerc

Usual Suspects
Aphthous ulcer
Traumatic ulcer

Mimics
Herpetic
Mucocutaneous disease (LP/PV/MMP)
Oral manifestations of disease
Malignancy (SCCa/Lymphoma/Salivary gland tumor)

White and chunky

Usual suspects
Dense bone island
Sclerosing osteitis

Mimics
Odontoma
Mature periapical osseous dysplasia
Fibrous dysplasia
Osteoblastic malignancy

Red gums

Usual suspect
Gingivitis/Periodontitis

Mimics
Lichen Planus
Pemphigoid/Pemphigus
Orofacial granulomatosis
Atrophic candidiasis
Primary herpetic gingivostomatitis
Malignancy

Floating white spot

Usual suspect
Tonsilloliths

Mimics
Sialolith
Phlebolith
Calciosis cutis
Foreign bodies

White patch

Usual Suspects
“Leukoplakia”
Traumatic or frictional keratosis
Candidiasis

Mimics
Lichen Planus
Dysplasia
SCCa
Cloudy sinus

Usual suspects

Antral pseudocyst

Mimics

Odontogenic lesion

Malignancy

Growth on the gums

Usual Suspects

Fibroepithelial polyp

Parulis

Pyogenic granuloma/peripheral giant cell granuloma

Mimics

Peripheral ossifying fibroma

Gingival cyst of the adult

Foreign body

Malignancy

Test your detective skills!

Identify your suspects!

give a differential diagnosis for each case