CPD Self Assessment in Clinical Dentistry

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Prelude
This is a new section of the CDE Self Assessment Series in Clinical Dentistry. Dental Quiz Questions. Note that we have decided to be more clinically orientated with more emphasis on medically related conditions that can affect dental treatment. In this section, we will delve into the intricacies of some soft tissue and dental anomalies. This dental quiz serves to update your CDE progress.

Question 1: Differential Diagnosis of Jaw Cysts and Tumours

The most common intra-bony non-inflammatory diseases in the jaws are odontogenic cysts and tumours. However, in the differential diagnosis of jaw lesions, the following must also be considered: i.e. abscesses, primary and metastatic tumours, developmental lesions, fibrous lesions and dystrophic processes. Think before you cut. An initial differential diagnosis can be established by obtaining a complete history after performing a thorough physical examination. These preliminary data obtained will influence the diagnostic tests ordered and the eventual choice of incisional or excisional biopsy.

Case 1A

This 27-year-old Chinese female clerk was blissfully unaware of the huge swelling in the anterior floor of her mouth until her well-informed dentist Dr. C advised her to see him for further management.

a. What is wrong with the floor of the mouth (Fig. 3a)?

b. What anatomical structures are involved with the swelling (Fig. 3b)?

c. Will she have any distinct functional problem in speech and mastication? (Fig. 3c)

d. We decided to perform an excisional biopsy. Which important possible post-op complication must you warn the patient about before proceeding?

e. Why is the incision shaped like this? Describe what you see in Fig. 3d.

Case 1B

This 16-year-old Chinese female student was worried about the increasing asymmetry of her face (Fig. 3e). She complained about this fluctuant mobile lump on her (L) cheek which had gradually increased in size.

a. How can you tell that this is so in Fig. 3f?

b. Again we decided to do an excisional biopsy. What types of mid-line swellings that you must consider in the differential diagnosis?

c. What structures must you avoid when operating on the buccal mucosa of the cheek? (Fig. 3g)

d. What is the difference between an incisional biopsy and an excisional biopsy? Which important possible post-op complication must you warn the patient about before proceeding?

e. The surgical closure (Fig. 3h) started some months back. What do you think we did?

Case 1C

This 32-year-old Chinese housewife presented around Chinese New Year 2004 for a rapidly enlarging swelling which started some months back.

a. What can you see in Fig. 3i?

b. Fig. 3j is the x-ray image appearance—actually the growth is on the (L) side! Has a unique feature indicated? Which tooth is the culprit?

c. The X-ray appearance confirms the benign nature in contrast with Fig. 3k. What features indicate its non-aggressive nature?

d. The growth was enucleated (Fig. 3l). Are you likely to encounter any vital structures in the maxilla?

e. The excised lesion Fig. 3m is quite typical. What can you see?

Case 1D

This 60-year-old Chinese businessman has had a growth in the (L) maxilla for the last five years!

a. What features in Fig. 3n suggest a benign growth in the (L) maxilla?

b. Fig. 3o (mirror image) confirms our suspicion. How would you establish a differential diagnosis? How would you estimate the size of the maxillary sinus?

c. The X-ray appearance in Fig. 3p confirms our suspicions beyond doubt! What can you see in the (R) maxillary sinus?

d. We actually excised the lesion in toto after an initial incisional biopsy confirmed the photos were lost. What do you think we did?

Case 1E

This 74-year-old Malay housewife complained of trismus, pain of (L) jaw and inability to eat plus difficulty in swallowing saliva.

a. What can you see in Fig. 3q?

b.Fig. 3r (mirror image) is the extra-oral presentation. Describe what you see and correlate it with your diagnosis.

c. The intra-oral appearance Fig. 3s confirms that this lesion is probably of infective origin. Why?

d. The X-ray view (Fig. 3t) is highly informative. What can you see? How does the appearance of the mandibular bone explain your findings in Fig. 3r and Fig. 3t?

e. What are those multiple radiopaque lines?

f. After one month of conservative treatment, the patient was cured. Fig. 3u (intra-oral appearance) confirms this. What do you think the problem was and what did we do to achieve a cure?

The rationale for putting forward cases 1A to 1E is to help readers achieve some skills in narrowing down the identity of a lesion from differential diagnosis. How would you establish a differential diagnosis? (Hint: three main steps.)