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 process.

Question 1: Differential Diagnosis of Jaw Cysts and Tumours

The most common intra-oral 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., non-odontogenic, primary and metastatic tumours, developmental lesions, fibro- osseous lesions and dystrophic calcifications. 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 incisional biopsy. What type of incision was used? (Fig. 3d)
e. Why is the incision shaped as shown in Fig. 3e? (Hint: three main steps.)

Case 1B

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

a. How can you tell that this is so in Fig. 3g? (Fig. 3h)
b. Again we decided to do an excisional biopsy. What structures must you avoid when operating on the buccal mucosa of the cheek? (Fig. 3i)
c. What structures can you discern in the surgical bed after the excisional of the tumour? (Fig. 3j)
d. The excised lesion (Fig. 3k) indicated the immediate post-op scenario and the two weeks post-op appearance (Fig. 3l). What are the features that you see? (Fig. 3m)

Case 1C

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

a. What features in Fig. 3p suggest a benign growth in the (L) maxilla? (Fig. 3q)
b. Fig. 3s (mirror image appearance) actually the growth is on the (R) side. (Fig. 3r) What is the other side? Which tooth is the culprit? (Fig. 3s)
c. The X-ray view (Fig. 3t) confirms that this lesion is probably of infective origin. Why? (Fig. 3u)
d. The X-ray view (Fig. 3v) is diagnostic. Describe what you see and correlate it with your diagnosis. (Fig. 3w)

Case 1D

This 60-year-old Chinese housewife complained of trismus, pain of (L) jaw and inability to eat plus difficulty in swallowing saliva.

a. What can you see in Fig. 3u? (Fig. 3v)
b. Fig. 3y (intra-oral appearance) confirms this. What signs indicate that this is probably not an aggressive growth but inflammatory in nature? (Fig. 3z)
c. The intro-oral appearance Fig. 3w confirms that this lesion is probably of infective origin. Why? (Fig. 3x)
d. The X-ray view (Fig. 3y) is highly informative. What can you see? How does the appearance of the mandibular bone explain your findings in Fig. 3z and Fig. 3w?

Case 1E

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

a. What features in Fig. 3p suggest a benign growth in the (L) maxilla? (Fig. 3q)
b. This 32-year-old Chinese housewife presented around Chinese New Year 2004 for a rapidly enlarging swelling which started some months back.

c. The facial asymmetry is highly obvious. Describe what you see? (Fig. 3m)
d. The intra-oral appearance looks bleak. Why? What features in Fig. 3n suggest that we are dealing with something aggressive, fulminant and probably malignantly?

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

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

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.)