Using nature to ‘restore’ open carious lesions in primary molars.

Background. >>

In recent years with the increasing mechanisation and commercialisation of dentistry it appears that some of the basic lessons of nature have been lost.

One area is the treatment of some types of open carious lesions in primary molars. As long ago as 1938 a report was published showing that open lesions in primary molars progressed more slowly than closed ones. The ‘X factor’ is the access to saliva.

Saliva has a good buffering and remineralising capacity and its effect can be utilised in the treatment of open carious lesions in primary molars.

Factors to take into account. >>

1. How open is the lesion? >>

As a general observation the more open a lesion is to saliva, the slower its progression. Also, primary molars invariably have a limited life span, therefore simple observation and no restorative intervention may be all that is required. (There is no damage to the permanent successor).

An example: 1

The photographs below show how the openness of an occlusal lesion undoubtedly facilitated salivary access and contributed to its arrestment over a 4-year period. Note the shininess of the lesion surface at year 4.

A similar phenomenon occurred with the lower left second primary molar.

Radiographs of the case are presented on the next page.
Using nature to ‘restore’ open carious lesions. (cont)

1. How open is the lesion? (cont) >>

More examples: ¹

Above: Examples of sites where lesion progression tends to be slow. The openness of the lesions contributes to easy salivary access.

Sites where open lesions are frequently found:
- Distal surface primary canines.
- Mesial surface first primary molars.
- Facial surface primary molars.

Above: An example where a lower primary molar with an open arrested facial-surface lesion was ultimately exfoliated and replaced by its permanent successor.
2. What colour is the lesion? >>

Invariably darker lesions are progressing more slowly than lighter-coloured ones and, whilst probing of a lesion is best avoided, the darker-coloured ones are usually firmer.

Summary:
The fact that a lesion may look large does not necessarily mean that it is progressing rapidly. The above information can help differentiate the lesions that are likely to progress quickly as against those with a lower priority.

● Techniques of opening up a lesion. >>

There are a number of procedures for opening up carious lesions in primary molars once patient co-operation has been achieved. The procedure has been called Non-Restorative-Cavity Treatment (NRCT). ²

Above: Example where removal of part of the facial and lingual walls can open up a lesion to saliva.
Using nature to ‘restore’ open carious lesions. (cont)

**Techniques of opening up a lesion. (cont) >>**

**Ingers’ Technique.**

A technique that can be used for disto-occlusal cavities in first primary molars is the Ingers’ Technique. It can be employed when there is no gap between the first and second primary molars at the gingival margin.

For the Ingers’ Technique to be used there must be no gap at the gingival margin between the first and second primary molars.

With the Ingers’ Technique a slice is made with a tapering diamond bur at an angle of approximately 60 degrees or less.

The remaining caries is removed and a simple ‘box-type’ restoration placed if needed.

References: