

# Letters to the Editor

## The radiological appearance of gold thread cosmetic treatment

A female patient aged 64 had bitewing radiographs in February 2006 (Figure 1a and b) – no pathology or abnormalities were observed.

The patient was an irregular attender and, on returning for a check-up in January 2009, further bitewings were taken (Figure 2a and b). The patient had no complaints and, on examination, both intra-orally and extra-orally, there were no apparent abnormalities present.

Multiple wavy thin linear, but irregularly positioned, radio-opacities were noted superimposed bilaterally over the teeth, mandible, ramus and soft tissues. Intra- and extra-orally there was no evidence of any 'fibres' which could be held responsible for the radiographic picture. Furthermore, these radio-opacities did not seem to bear resemblance to any of the more commonly found superimposed radio-opacities, such as calcifications of acne, phleboliths associated with soft tissue haemangiomas which are calcified, or miliary osteomas of the soft tissues.

The patient did not return for a further check-up until May 2011 when further bitewing radiographs were taken (Figure 3a and b).

The distribution of thin wavy radio-opacities was different from those in Figure 2a and b and assumed to be due to changed angulations of the x-ray tube during the exposure.

Only after prolonged discussion regarding the radiological picture did the patient disclose that she had undergone cosmetic treatment involving gold to improve her wrinkles while on holiday in Poland in 2006. Similar cases have been documented by Mizrahi and Scully<sup>1</sup> and Alsaadi *et al.*<sup>2</sup>

The 'Gold Thread Facelift' is offered most frequently in Eastern Europe and Russia. It is often named 'gold filament rejuvenation', claiming to be a low impact and highly effective technique for improving youthfulness of the skin.

The main promotional points are that gold threads are inert materials that thicken the skin while simultaneously increasing its elasticity. Providers claim the most profound benefit of this treatment is found when used in conjunction with cosmetic procedures.

### Gold thread implantation

Pathological changes have been identified post gold thread insertion. These threads are usually 0.1 mm in diameter, 99.9% pure 24 carat gold and inserted subdermally. Collagen production by fibroblasts is

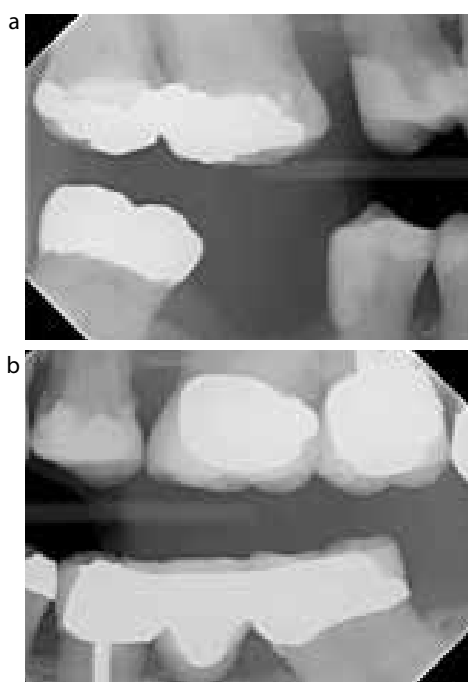
stimulated on insertion and a fibrous capsule is formed around the gold thread. Angiogenesis is also promoted in the implantation area and there is an increase in mast cells over time.

Shin *et al.*<sup>3</sup> state that this gold thread implantation is a prophylactic procedure which is intended to 'slow the ageing process, achieve fine wrinkle elimination, smooth deep wrinkles and improve skin elasticity and reinforcement'. The 'skin rejuvenation' effects are reported to last 8–15 years<sup>4</sup> and be at an optimum after 1 year.

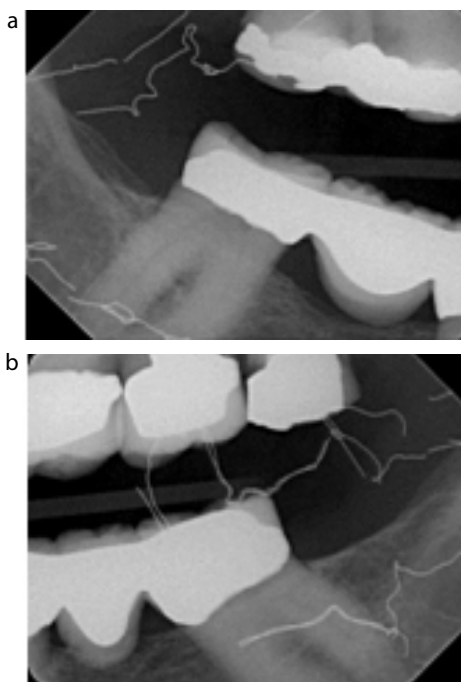
Practitioners should be aware that there are multiple names for this procedure, including the gold thread procedure, gold thread rejuvenation, gold filaments, gold reinforcement and the gold face lift.<sup>4</sup> It is important that GDPs are aware of the radiographic presentation of this so-called 'Gold Thread Implantation' so that an appropriate history can be elicited and a differential diagnosis made.

### References

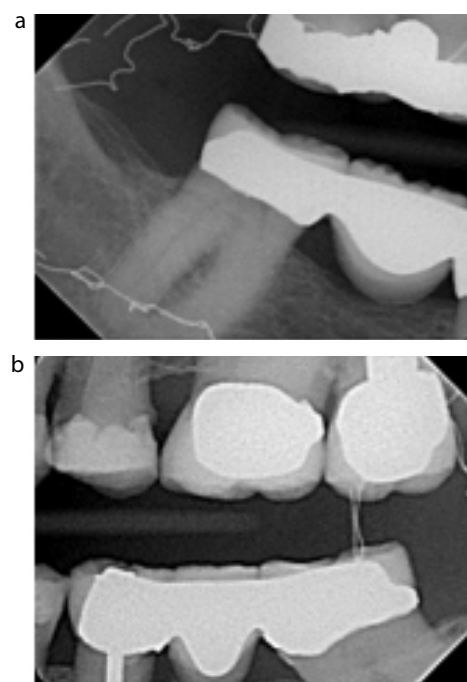
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**Figure 1.** (a) Right bitewing radiograph taken 02/06. (b) Left bitewing radiograph taken 02/06.



**Figure 2.** (a) Right bitewing radiograph taken 01/09. (b) Left bitewing radiograph taken 01/09.



**Figure 3.** (a) Right bitewing taken 05/11. (b) Left bitewing taken 05/11.

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### Impacted inverted parapremolar

The presence of supernumerary teeth in a maxillary premolar region is not uncommon. Supernumerary teeth in the premolar region are known as parapremolars.<sup>1</sup> According to orientation, supernumerary teeth can be vertical, inverted or transverse.<sup>2</sup> The presence of these teeth may result in various clinical problems like failure of eruption of adjacent teeth, displacement, crowding, and dentigerous cyst formation.<sup>3</sup>

A 12-year-old patient reported to Faculty of Dentistry, SEGi University with the complaint of spacing between upper right back teeth. Intra-oral examination revealed spacing between the maxillary right premolars. An intra-oral periapical radiograph showed an impacted inverted supernumerary tooth present between the maxillary premolars. To rule out the possibility of bilateral supernumerary teeth, an orthopantomogram was taken (Figure 1). The need to extract the inverted, impacted parapremolar followed by orthodontic treatment for space closure was explained to the parents and informed consent was obtained from them. A portion of root of the inverted parapremolar was removed by sectioning. Guttering around the buccal bone was performed and a crown portion of the tooth was removed. Orthodontic therapy is currently ongoing to close the space between the premolars (Figure 2).

A clinician needs to be aware of the possibility of impacted supernumerary teeth and should recognize signs suggestive of their presence. Clinical problems associated with impacted inverted mesiodens has been previously reported,<sup>3</sup> but spacing associated with impacted inverted parapremolars has not



**Figure 1.** Orthopantomogram shows an inverted parapremolar between the right maxillary premolars. Inset shows the intra-oral periapical radiograph depicting the inverted parapremolar.



**Figure 2.** Clinical image shows the closure of the space with continued eruption of maxillary right second molar and orthodontic treatment. Inset at the top end of the image shows the extracted supernumerary teeth. Inset at the bottom shows the closure of the space between maxillary right premolars.

been reported thus far. Surgical management of the impacted supernumerary teeth, orthodontic management and management of keratinized gingival tissue are critical factors that can affect the prognosis in such cases.<sup>4</sup> Early identification and appropriate treatment of impacted supernumerary teeth and the associated conditions can prevent or minimize the complications.<sup>2</sup>

### References

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