When deciding how to deal with a periodontally compromised tooth in a clinical situation, there are a number of factors to take into consideration. These not only include the prognosis of both the affected tooth and adjacent teeth, but also the periodontal stability of the rest of the mouth, all of which play an important factor in deciding whether to treat the tooth or to go ahead with the placement of implants. Other vital factors to remember are the patient's bone dimensions, their financial restrictions, and any cosmetic implications of treatment.

Early treatment

It is widely accepted among dentists that teeth affected by periodontal disease are unreliable in the long-term, meaning that if implant therapy is a consideration, it should be carried out as early as possible.

Implant therapy is regarded as a safe and reliable method in the treatment of complete and partial endentulism, however, it is also associated with technical and/or biological complications, such as peri-implantitis. This significant and not infrequent complication can result in bone and implant loss, and seems to be more prevalent in periodontally compromised patients.

In my view, treatment decisions should be based upon scientific evidence. However, there is a lack of data to act as a guideline for our choice of strategy, and we are all guilty of being biased by our own clinical experience! Our common sense will often lead us to deal with clinical issues only within our 'comfort zone'.

The following article presents a case that presented with extremely severe generalised chronic periodontal disease that clearly needed restorative treatment and periodontal management. The case has been followed for eight years, which is a reasonable time to evaluate its long-term outcomes.

The Case

This patient was a 47-year-old male in good general health. He complained of tooth mobility (particularly tooth 11), which had triggered his visit to the dentist. As a temporary measure, his dentist had splinted the tooth (Fig 1). Upon examination, dramatic bone loss could be seen (Fig 2) with deep pockets and bleeding on probing (BOP) in all areas. No previous periodontal treatment was reported other than occasional ‘scaling and polishing’, and his oral hygiene was fair.
After lengthy discussions about the patient’s prognosis and treatment options, his wish to avoid removable prosthesis was made quite clear, although his cosmetic demands were low. Extensive implant treatment was beyond the patient’s financial means, but he would consider short arch dentition.

A full clinical examination was carried out to evaluate the extent and severity of the disease (pockets, bleeding, mobility, etc.). Initial periodontal therapy included the removal of the ‘hopeless’ remaining molars and tooth 11 (root resection). All remaining single-rooted teeth, regarded initially as having a ‘questionable’ prognosis, were subject to a course of non-surgical periodontal therapy.

Despite the impressive radiographic appearance of dramatically advanced mobility following initial therapy was degree 1 and all teeth were functionally stable. Generally, bleeding and pockets improved substantially, however a number of sites in the lower jaw still presented deep pockets that responded well to periodontal surgeries (Fig 5). Once full periodontal stability was obtained (absence of pockets >4mm, negligible presence of BOP, good OH and physiological mobility), a strict maintenance programme was designed to prevent reoccurrence of the disease (Fig 4 & 5).

Subsequently, an implant was installed at 11 with simultaneous connective tissue graft to improve the quality of the soft tissue seal (Fig 6 & 7). The implant was restored three months later with a cemented porcelain-bonded crown over a cast-to-abutment (Fig 8). The patient has been followed for eight years without any significant change to his periodontal and peri-implant condition (Fig 9). The only relevant observation was the deterioration of the conventional fillings present in the anterior region that were getting old and needed replacement.