Papillon–Lefèvre syndrome is characterised by palmoplantar keratoderma and severe inflammation and degeneration of the periodontium due to periodontitis. Consequently, most primary teeth are lost by the age of 4 and most permanent teeth by the age of 14.

An alternative to conventional management of the disease, that is, dentures, is a treatment proposed by Drs Ahmad Al Zahaili and Jean-François Tulasne (developer of the partial bone graft technique used). Their groundbreaking surgery entails transplanting bone extracted from the cortical external surface of the parietal bone to the patient’s mouth. In the case reported in this article, the surgery afforded the patient the opportunity to lead a normal life since losing all of his teeth and the surrounding bone at the age of 13.

The 21-year-old patient was referred to our clinic by his implantologist from Boston University, who had made the acquaintance of Drs Tulasne and Al Zahaili at an international conference and thus knew about the possibilities offered by the partial bone graft technique.
Before treatment was started, the diagnosis was confirmed and we established that the patient could be treated under general anaesthesia. The diagnostic information was obtained from CT scans and radiographs of his maxillae, mandible and skull to check the bone skull density of the cortical external and internal surfaces. Surgical intervention demanded very precise diagnostics, which would have been very difficult to obtain without CBCT.

The surgery was performed under general anaesthesia (the treatment was performed at French Dental Clinic in Dubai). We first prepared the maxillae and mandible to receive the parietal bone grafts. We then collected the bone from the cortical external surface of the parietal bone and transplanted it to the maxillae and mandible, and secured it with surgical screws and then sutures.

After a healing period of three months, we established that the graft had been successful and had been properly integrated into the jawbone. We were extremely pleased with the results. Nine implants were then placed in the maxillae and six in the mandible. After another three months, the final restoration was seated.

The entire treatment process took approximately six months, but the results achieved were worth it for both the patient and us. The patient has been given the opportunity to have his own teeth without the compromise of wearing dentures at such a young age.

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