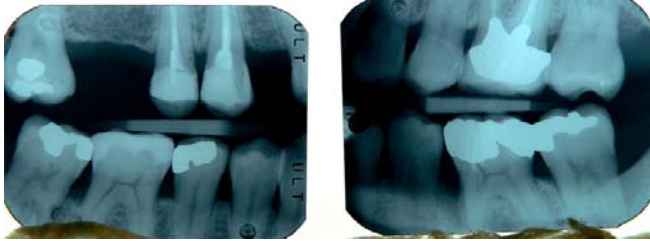


Partially Edentulous Reconstruction

Upper Jaw

Female Patient

Age at time of surgery: 46



Patient is non-smoker with sound medical history. Could regard patient as moderately susceptible to periodontal disease.

Bitewing x-rays show typical moderate to heavy restoration pattern for the age group and patient is comfortable with dentistry and is relaxed during treatment. Oral hygiene could be

improved but broadly adequate.

Patient presented with cosmetic concerns regarding the appearance of the upper right pre-molar teeth and the edentulous spaces either side. The root-filled upper right pre-molar teeth had large composite resin restorations which had failed to provide any cusp protection and were placed as the immediate restorative follow-up to the root fillings some ten years before.



The upper right second pre-molar appeared to have a failing root canal and both teeth had been presenting, at times, with functional tenderness. Intermittently, she had been avoiding them in the bite.

Composite resin is distinctly not the material of choice to restore posterior root-filled teeth due to setting shrinkage and poor adhesive compatibility with root surfaces and dentine. Teeth such as these presenting with symptoms would require root canal re-treatment and probably definitive restoration with post and core crowns (the core most probably being amalgam). Due to a long term history of weak cusps left

erroneously in full occlusion, the suspicion of vertical fractures having re-infected at least one of the teeth would be more than a reasonable conclusion.

It was concluded that to solve the patient's cosmetic concerns regarding upper right posterior spaces, a long span conventional bridge could be considered following root canal re-treatments and amalgam core placement. The bridge would be a six unit porcelain bonded to gold extending from the upper right canine, which was essentially unrestored, to the upper right third molar (we were assuming it to be the third molar).

The patient was in no way interested in a partial denture and this too has become fairly consistent for under fifty-five baby boomers.

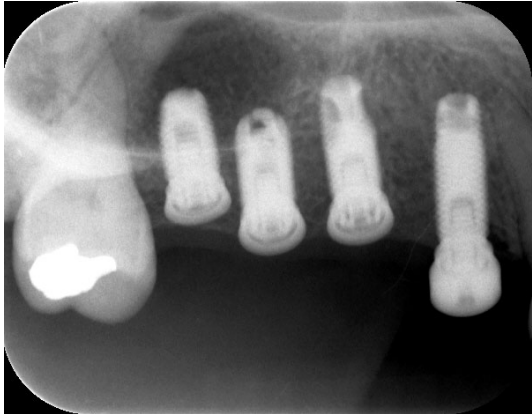
The conventional bridge option was rejected for the following reasons;

1. The posterior molar abutment had convergent root anatomy as opposed to divergent.
2. The anterior canine abutment was essentially unrestored and we had no wish to provide full coverage on an essentially sound tooth.
3. Long span bridges will show up in studies as having much shorter life-spans than short span bridges (eg. Three crowns replacing one tooth).
4. The risk of vertical fractures being present in long term broken down, unprotected root filled pre-molars, was unacceptably high.
5. The cost of such a construction was unacceptable versus the risk and probable life span and, would have represented a significant time investment.

An additional treatment option was to re-treat and restore the pre-molars with implant options in the adjacent posterior space and some cosmetic closure of the anterior space with crown contouring.

Partially Edentulous Reconstruction

Upper Jaw



Treatment

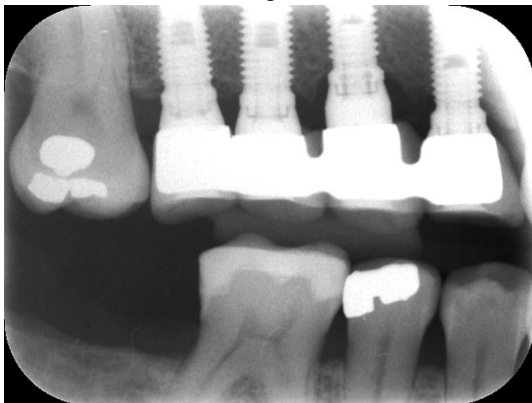
Three months following the extraction of the upper right pre-molars, four regular platform machined or turned Brånemark fixtures were placed in the upper right quadrant.

The decision to extract the pre-molars was made for the reasons previously stated and that the implant outcome provided was a much superior long term situation, compared to attempting re-treatment and restoration of the pre-molars and implant placement in the adjacent posterior space. In other words, the natural teeth had condemned

themselves due to;

1. History of symptom presentation.
2. Reasonable multiplicity of doubts about their long term viability.
3. Even if they were restorable natural teeth, they represented an obstruction to the provision of a superior long term implant outcome.

This was a two stage procedure with six months healing time and we did have to curette the extraction sockets seven days post extraction. Prefabricated multi-unit abutments were chosen to support a four unit VMK screw-down bridge.



Subsequent to placement of implant bridge patient reported some soreness or difficulty in chewing. We isolated the symptoms to the lower right first molar, heavily restored, and in my view, inappropriately restored, with direct composite resin. We replaced this restoration with an "amalgam crown" providing full occlusal coverage and retained by six titanium retention pins. This resolved the patient's symptoms and she phoned back to report complete comfort and that the bridge now fulfilled her functional expectations.

Fees

- Interim partial denture fee \$650.00.
- 2 x Extractions \$200.00.
- Implant placement and restoration representing two fees each of \$6,000.00 separated by the six month healing time.

Total Cost \$12,850.00.

Completed in October 2004.