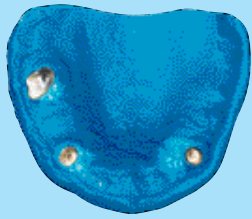


CASE STUDY 10.07

MONOPREN® transfer



Monopren® transfer – a practical test report

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In the following case study a new hydrophilic batch of the multifunctional Monopren® transfer was tested under real conditions. The focus of the practical testing was laid upon implant impressions with various implant systems. The accuracy and reliability of the impression material can be exemplarily demonstrated on the basis of two selected cases with an especially large span as well as in combination with conventional crown impressions.

The impression material test was carried out under normal real-life conditions in a dental office in cooperation with a certified quality laboratory*. Monopren® transfer, which we have used in our dental office for years as a preliminary impression material for crowns and bridges – usually with customary impression trays – is a medium viscosity, addition-curing, elastomeric monophase impression material based on vinyl polysiloxane. Apart from the high accuracy and the elastic recovery which can be expected from a modern material, one of the main advantages of Monopren® transfer, in my opinion, is the slighter movement of the teeth due to the lower impression pressure. This fact is especially

important for the accuracy of the occlusal reconstruction.

The material's actual domain is pick-up impressions. Here, custom-made impression trays are used, as is suitable for this indication.

In combination prosthetics, with Monopren® transfer we achieved good impressions of both the jaw tegument as well as an exact fixation and transfer of the primary elements. The final hardness of the impression material is very good. Therefore, when making the individual trays, you should make sure that you leave enough impression material thickness in the area around untreated teeth so as to be able to remove the impression with more ease.

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When it comes to implant prosthetics, we use the systems from Camlog and Nobel Biocare in our dental office. In the first ten years of implant prosthetics, we mainly used the open impression method with perforated individual impression trays. In the last three years we have increasingly started using closed implant impressions. Reasons for this development were the easier handling properties and the equally good fixation of the impression aids. As we also attend to patients with restricted mouth access in our special tumor and gap rehabilitation consultation more and more often, the open implant impression is hardly feasible in such cases for anatomical reasons. For a while we first carried out a closed and then, in a second session, an open implant impression in order to exactly make the individual impression aids.

The trial frames that were made after taking a closed preliminary impression proved to be generally accurate, while especially in those cases with disabled or injured patients errors did occur from time to time when using open implant impressions.

Monopren® transfer also records the defect reduced jaw sections very well and fixes the impression aids reliably. The well attuned total working time (when using the Plug & Press® Dispenser from Kettenbach), the relatively short intra-oral setting time, as well as the patient acceptance of the impression material are especially worth noting.

Under clinical, real-life conditions, the provided new material seems to display a further improved flowability (due to the initial hydrophilicity) as well as final hardness.

Of the approx. 15 practical cases, only two shall be briefly introduced here for an exemplary evaluation of the impression properties.

Already the first case demonstrated the high final hardness and transfer reliability of the impression material. In the case of a 56 year old patient, five Camlog implants were placed in the positions 16, 17, 23, 24 and 28** as a basis for the prosthetic reconstruction of the upper posterior region. The patient did not want any bone build-up in

the sinus area, causing a very large bridge span between the abutment 24 and the implant 28 placed in the tuber area.

An open implant impression was therefore anatomically impossible distally. The primary impression with a customary tray worked well in general, however discharge channels did appear vestibularly (fig.1).

The analysis showed an older mixing and dispensing unit to be the weak point when using larger impression trays, due to its longer mixing time. Later impressions with the much faster Plug & Press® Dispenser did not display that error anymore. However, as the transfer caps were definitely grasped tightly in the Monopren® transfer, models were made, individual constructions milled and frames produced after preliminary modelling (fig. 2-4*). The subsequent frame-fitting and the then following bridge completion proved, due to their accurate fit, how exceptionally high the transfer reliability of the Monopren impression is, even under difficult conditions. The control x-ray of the construction (fig.7) shows this even more clearly than the clinical photos (fig.5-6).

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ILLUSTRATIONS

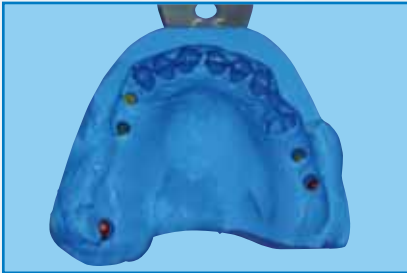


Fig. 1:
Closed implant impression with
Monopren® transfer over five Camlog
implants



Fig. 4:
Individually designed facing of the
implant bridge



Fig. 7:
Control x-ray of the exactly fitting implant
construction



Fig. 2:
Individually milled implant super-
structures with planning rim



Fig. 5:
Implant bridges in situ, occlusal mirror
image



Fig. 8:
Preparation for the insertion of the
combined supported immediate bridge on
the residual tooth 24 and the two replace
implants 25 and 27 with individually
milled superstructures

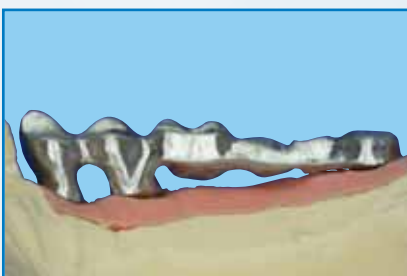


Fig. 3:
Shaped bridge frame over the implant
constructions



Fig. 6:
Posterior implant bridges in situ, front
view



Fig. 9:
Precisely fitted immediate bridge
from 23 to 27

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The second case demonstrated the universal applicability of Monopren® transfer both as a primary impression material for crowns as well as a pick-up impression material in implantology.

A 67 year old patient first received two implants in regio 25 and 27*** due to the loss of the teeth 25 to 27 with simultaneous limited periodontic prognosis of the teeth 23 and 24. After the healing-in of the implants, Monopren® transfer was used to take both a closed implant impression as well as a crown impression with Panasil® initial

contact of the prepared tooth 24. The constructed immediate bridge, as a replacement for tooth 23, which was to be extracted, displayed a perfect fit on the implants 25 and 27 and tooth 24 (fig.8,9). (The next steps will see an implant in regio 23 after the healing process and

later the integration of an implant-supported construction from 23 to 27). As a result of the practical material test, I can confirm the much-improved impression properties of the new Monopren® transfer, as well as reliable and universal practical usability.

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The practical testing of the monophase impression material Monopren® transfer with special respect to implant pick-up impressions displayed favourable material handling and precise, accurate implant suprastructures in all cases, even in difficult situations with a large span and in combination with conventional crown impressions.

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