COMMENTARY

IMPLANT REPLACEMENT OF THE MAXILLARY CENTRAL INCISOR UTILIZING A MODIFIED CERAMIC ABUTMENT (THOMMEN SPI ART) AND CERAMIC RESTORATION

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The author presents a case report of a timely subject in implant dentistry. The use of ceramic-type abutments is continuing to evolve and has become more prevalent in implant dentistry. The author points out that ceramic abutments allow for a more esthetic restoration, have the strength to support a final restoration, and allow for a healthier periodontal environment around the restoration. This case report demonstrates some of the advantages of ceramic abutments, and with more clinical cases and research, techniques will continue to evolve for the use of these abutments.

The following areas should be recognized and further considered. Are the esthetics around an implant restoration purely dictated by the abutment selection? Is the dark showing through the gingiva a result of abutment selection? How is the soft-tissue profile developed around an implant restoration? How is this gingival profile then transferred to the final restoration?

Although a nonceramic abutment selection may lead to a dark gingival area around an implant restoration, other factors may more frequently cause this situation. When the periodontal biotype is thin, fenestrations and dehiscences may occur on the facial surface of a dental implant, leading to a dark appearance showing through the thin gingival tissue. Also, with the more frequent immediate placement of dental implants and flapless placement of dental implants, more implants are being placed into areas with missing facial bone. These implants create a dark appearance in the gingival area around the final restoration. This is because of the implant showing through the tissue, not the abutment selection.

Another consideration when fabricating a custom ceramic restoration is how the shape and contour of the abutment is determined. As mentioned in the case report, much time is spent custom contouring the provisional restoration. There then needs to be a technique to transfer this contour to a laboratory model to create a custom ceramic abutment. With this level of precision, using a stock implant-level impression coping may not be adequate. Other techniques for transferring implant position and gingival contour need to be used and further developed.

The influence of a ceramic abutment on the periodontal environment needs more research. If the environment around a ceramic abutment consistently is healthier than around typical metal abutments, then this will be an added advantage of using a ceramic abutment.

There is no question that today's dentistry strives to create the most esthetic results possible. The ceramic implant abutment and ceramic crown is a very useful step toward accomplishing this goal. Although ceramic abutments will help achieve the optimal result, other factors also need to be considered when developing an ideal gingival environment.

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