

Overcoming difficulties fitting implant-retained crowns

The process of fitting crowns can have its problems, as Harry Shiers explains

In the last article I discussed how a crown might be retained by an implant, either screw retained or cement retained, explaining the rationale for each. The process of fitting crowns can have its difficulties, though, and I'll identify some of these here. Consider the single tooth.

Fitting a cement-retained crown

Cement retained crowns will seat onto standard abutments, partially and fully adjustable or ceramic abutments. A standard abutment usually has anti-rotational features and the tolerance for fit of the crown is very small. The significance of this is the cement, when placed into the crown during seating, will exert hydrostatic pressure, which the operator may fail to overcome. The result is the crown fails to seat correctly and a gap will exist at the margin. For this reason, crowns which are to be cemented onto non-adjustable abutments can be vented. This was considered necessary for the long Cera one abutments (Nobel Biocare).

Removing cement from sub-gingival margins is also one of

the frequent problems. Here prevention is the key, and no crown abutment junction should be greater than 2-3mm in depth, preferably the former. If you are selecting your abutments yourself, then when you record the impression measure the distance from the top of the implant to the top of the peri-implant soft tissue margin and choose the appropriate abutment height. If your laboratory chooses the abutment for you, check the height from the implant analogue to the soft tissue replica margin and cross-reference it with the site in the mouth.

Fitting a screw-retained crown

With a screw-retained crown, the potential problems lie in seating the abutment incorrectly into the head of the implant (if the crown and implant are made as one unit). Struggling to engage the thread of implant or the abutment may result from tension exerted by the surrounding soft tissue or a mal aligned thread. In the first instance, the tissue will blanch and this will give an indication. If this does not happen, do not force the screw – try another or check

the thread on the healing abutment to make sure this has not been cross-threaded. ■

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