Top tips for aesthetic brilliance part 3

The final part of Lloyd Pope BDS's description of Galip Gurel’s thoughts on digital imaging, one of the cornerstones of Galip Gurel’s presentation at the 10th Annual BACD Conference

How to connect the links – the digital world

Most cases are quite complex and involve many aspects. Therefore you need digital photographs. Galip Gurel (GG) believes that if you don’t do digital photography then you can’t possibly deliver top-end Aesthetic Dentistry. Therefore you need a proper camera with suitable flash – not just a ring-flash.

You need to document the case step-by-step, otherwise you run the risk of forgetting critical bits of information. The brain can’t concentrate and store all the information it is exposed to. If you look at a smile you might recall the basics, but will fail to retain nuances regarding individual tooth positioning etc.

GG uses these pictures as part of the weekly Practice Group Discussion Meeting. This is a two hourly meeting during which all Practice Members will discuss any positive and negative things that have occurred during the week. The second part of the meeting is when they discuss the new patients who have joined the practice that week. They document the cases with pictures leading to a keynote (Apple equivalent to Powerpoint) presentation for discussion regarding potential treatment options for each case. This helps them come up with different ideas. Regarding aetiology and diagnosis there is only one of these, but regarding treatment there can be many.

Pre-operative interviews are always recorded on a camcorder so that they have a record of what was said by the patient and Dentist. However, not all patients are camera-friendly so the interview is good for medi-co-legal use, if necessary, and also generates hundreds of intraoral pictures which can be used for treatment planning.

Then they create the mock-up which is used for the discussion between the Dentist and patient.

Always sit the patient up and don’t let the patient see what they have done until the mock-up has been completed fully. Then let the patient see the final suggestion.

If you give a patient a mirror they will start to titivate their hair, pull ridiculous smiles etc before they even start to look at the proposed smile design. The whole effect will have been ruined. Therefore take digital pictures first and show these to the patient; document with photos including a 12 o’clock view to check the proper profile etc. Important tip - ban mirrors.

Use the mock-up for the patient discussion. This is a videodirect mock-up analysis, during which GG gets the patient to talk generally about the set up in order to identify if there is anything wrong as far as they are concerned. This normally takes about 50 minutes from start to finish.

At this stage GG is only concerned with the labial and incisal appearance. He is not bothered about any lingual erosion etc. He wants to make sure that the patient is...
100 per cent happy with the proposed design and resultant appearance before he proceeds to do any tooth reduction etc.

When it comes to final decision making it is important to consider who will be involved, what treatment will be performed and by whom. However, it is very difficult to get all the interested parties together at the same time. Consequently GG uses different tools in order to facilitate this. These tools include Keynote, Dropbox and Skype so that video conferencing can be conducted between all the concerned parties at a mutually convenient time, wherever they happen to be located in the world at any specific time or day. Incidentally, Skype can be downloaded free of charge and the video conferencing facilities are also free.

GG also uses offline treatment planning sessions to create presentations which can be downloaded by the other parties at any time convenient to them. They can be sent via dropboxes to whoever needs them.

Actual treatment
The Dentist needs to transfer the aesthetic occlusal plane to an articulator. Previously this was only possible via a facebow, which was prone to errors due to the position of the ears etc.

Now GG uses a digital facebow transfer concept, which is very simple and very accurate.

For the procedure, take a simple full-face photograph. Then zoom in and take an intraoral close-up with lip retraction. Alter the opacity of the picture and drag it over the full face image. At this stage it won’t be to the correct scale, but you can resize and rotate it to get the correct orientation etc. You can then zoom out and send this image to the laboratory.

The Guided Diagnostic Aesthetic Wax-up is the most important and critical step. To create his Aesthetic Pre-Evaluation Temporaries GG uses Luxatemp, which he has used for many years. He then prepares the teeth through the APT. For the final restorations he uses Emax all-ceramic restorations with a ceramic build-up incisally.

He does a try-in using the try-in pastes. At this stage he doesn’t let the patient have a mirror to look at the results, because they simply start pulling silly and unnatural faces and this totally destroys the impact of seeing the new restorations for the first time. Instead he takes digital images and then discusses these with the patient showing them the new teeth in natural expressions. These pictures are taken against a flat white background, so there are no visual distractions, and then sent to a large screen LED television for the patient to see. If the patient is 100 per cent happy they go ahead and bond the restorations, normally two-by-two i.e. two centrals, lateral and canine, other lateral and canine etc.

Finally he shows the patient before and after pictures so that they can see the changes he has created. Patients cannot necessarily recall the original appearance after the new smile design has been created.

Finally GG described a very complex case which had been performed in one working day with the patient in Istanbul and the Technician in Brazil. This had involved all the conventional stages described previously with the working models etc produced by 3D printers in Brazil and Istanbul.

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