

Press release

Interview with Dr. Emanuele Ambu concerning high-quality instruments for first-class treatment

Dr. Ambu: “The integrated systems provide enormous support for the user during root canal preparation.”

Dietzenbach, November 2011. Dr. Emanuele Ambu is an internationally recognised endodontics expert. During the 15th Annual Congress of the European Society of Endodontology (ESE), which took place from 14 to 17 September in Rome/Italy, the dedicated Italian gave interesting insights into his working methods. He explained why it is particularly essential to have high-quality instruments in endodontics and why he therefore likes to work in collaboration with the traditional Japanese company Morita.

Question: Dr. Ambu, what specifically are you intensively involved with at the moment?

Dr. Emanuele Ambu: In practical research I am currently focussing on the application of digital volume tomographs in endodontic treatment. I am also involved with the so-called “hybrid concept”, which is a working method that enables quicker more reliable preparation of the root canal.

Question: How important is it in endodontics to be up to date, and to know precisely the state-of-the-art of this specialised field?

Dr. Emanuele Ambu: Extremely important! During the last 15 years there has been a whole series of paradigm shifts in the area of root canal treatment. Newly developed instruments and materials definitely support the endodontists, thus ensuring a much more reliable and easier treatment procedure. There are now rotary nickel-titanium instruments (NiTi files), which enable preparation of the root

canal within a few minutes. Moreover, instruments such as the Apex Locator also help considerably to improve the quality of any endodontic treatment, as the entire therapy can be performed more quickly and with less pain for the patient. In addition, there also is a technological progress regarding the cleaning and sealing procedures of the root canal, and microscopy and 3D volume tomography (CBCT) have considerably facilitated endodontic treatment success. Surgical microscopes and 3D volume tomography are extremely essential in treatment planning as well as in the therapy itself to ensure successful completion of complex endodontic cases. At the end of the day, it is our duty as conscientious dental practitioners always to treat patients according to state-of-the-art techniques.

Question: How important are specialist congresses such as the ESE for you? What are the most important findings that you take with you this year from Rome?

Dr. Emanuele Ambu: I think specialist society congresses are very important. Since I joined the ESE in 1999, I have not missed one single congress. This year's event in particular was one of the most interesting: over 200 lectures, fantastic poster presentations and also the fact that Rome is a city that radiates a special magic, even for Italians like me. I was personally involved during the congress with presentations about pulp regeneration and the application of CBCT-systems in endodontic treatment.

Question: There are often discussions about some kind of competition between endodontics and implantology. Do you think there is some sort of rivalry between these two specialist disciplines?

Dr. Emanuele Ambu: I think it is wrong to talk about rivalry between the two areas of dentistry. Each case must be examined very carefully. The main priority of each dentist should be to try to conserve the tooth, by mobilising other treatment areas. This includes the periodontal and restorative techniques of dentistry, which the treating dentist should take into consideration and fully exploit. When there is no possibility of conserving the tooth, there is also no objection to providing a dental restoration with a crown on an implant. An implant should therefore not be used solely because it is the cheaper option for the patient or because it is easier for the

dentist to place an implant. Far too many teeth are extracted nowadays because of inadequate endodontic skills and knowledge. Nowadays, we know that there is virtually no difference between the long-term success rates of root canal treatments and implants. There is of course no golden rule for when root canal treatment should be carried out and when the time is right for an implant. However, the American Association of Endodontics (AAE) issues very clear statements on the subject: The endodontic treatment of a hopeless tooth is just as unethical as the extraction and replacement of a restorable tooth by an implant.

Question: Where is the “art” in root canal treatment? In other words, where are the challenges and what determines the degree of difficulty?

Dr. Emanuele Ambu: According to Herbert Schilder, the aim of endodontic treatment is always the complete removal of bacteria from the root canal system. This allows apical periodontitis to be controlled, and prevents its occurrence following treatment. In fact, this aim is relatively easy to achieve: dentists must complete all treatment steps carefully – beginning with correct isolation of the treatment site using a rubber dam to the permanent restoration of the tooth. Treatment of a single-rooted, straight tooth is much easier than treatment of a molar with four severely curved root canals. Nevertheless, we now have instruments and techniques available that enable reliable treatment of all teeth.

Question: You had the opportunity of becoming familiar with the Soaric endodontic treatment unit from Morita. How does the workstation support you during treatment?

Dr. Emanuele Ambu: I had the opportunity at the IDS in Cologne and the congress in Rome to test Soaric and to work on a phantom head. I really appreciate the integrated endodontic system of the treatment unit. Soaric is fitted with an endo motor with integrated Apex Locator, making it easier to use the rotary instruments. I think that Soaric is fantastically well suited for endodontic treatment. The attachment for direct connection of a surgical microscope indicates that Soaric was entirely developed for endodontic experts.

Question: In general do you personally provide treatment alone (two-handed treatment) or rather with an assistant (four-handed treatment)?

Dr. Emanuele Ambu: I really always work using four-handed treatment with an assistant. I am often also supported by a colleague during surgical procedures. However, I am convinced that Soaric also provides an excellent opportunity to treat alone. The instruments are arranged pretty well, so they enable the dentist to perform an absolutely intuitive treatment procedure.

Question: In your opinion what makes the traditional Japanese company Morita one of the leading suppliers of units and instruments for root canal treatment?

Dr. Emanuele Ambu: The name Morita is familiar to every endodontic specialist, not least because of the electronic Apex Locators (Root ZX). The traditional company is one of the leading manufacturers of integrated endodontics. Integrated systems in particular, such as the DentaPort or the “old” TriAuto ZX (the first endodontic handpiece with integrated Apex Locator) or also the new “TriAuto mini” provide the user with enormous support during root canal preparation.

Question: Which instrument is indispensable for an endodontist?

Dr. Emanuele Ambu: We require all instruments and equipment, which enable us to perform good treatment. In my opinion a surgical microscope, Apex Locator and an appropriate endodontic handpiece are the minimal requirements for providing good treatment. I personally believe that the electronic Apex Locator is indispensable. The root canal can be prepared conventionally using files and sealed with gutta-percha heated over a flame. What we really must establish during root canal preparation, however, is the exact working length!

Question: Which is the most important instrument for root canal preparation? How many files do you require as a rule?

Dr. Emanuele Ambu: We have developed a technique – the so-called hybrid concept – which allows us to prepare a root canal using only three instruments. For

preparation we require the TriAuto mini, but not in automatic mode. We reach the apex simply by using a K file #10, to create a glide path. In this way we reduce the likelihood of the rotary instruments fracturing. The second instrument is then used: the rotary file EndoWave 35/08 is used to enlarge the access of the crown and middle third to the root canal. The working length is determined using the Apex Locator. We reach the apex using the EndoWave 20/06 and can completely prepare the root canal using this file. In accordance with the principle of estimating the apical extension, we widen the canal with the rotary instruments and use the attachment with the largest diameter. We use the TriAuto mini in automatic mode in the case of canals with severe curvatures. With this technique we reduce the risk of damage to the tooth structure outside the canal. We then reach the apex automatically using the smallest rotary instrument in the world, the MGP 1 (a rotary NiTi file with a conicity of 0.02 mm and a tip diameter #10). Then follows MGP 2 and MGP 3 (also with a conicity of 0.02 mm and the diameters #15 and #20). The DentaPort or the TriAuto mini in combination with the Root ZX mini can be used in the automatic mode: in this mode rotation starts as soon as the file tip is inserted into the canal opening. Once the apex is reached, the unit is simply removed by rotating the files in an anti-clockwise direction. Using a glide path of 20/02 the EndoWave 35/08 can prepare the crown and middle third of the root canal, even with severe curvatures. The apex is then reached and prepared using the EndoWave 20/04 and finally preparation is completed using the EndoWave 20/06. Precise video instructions on the website: www.jmoritaitalia.it describe the preparation in more detail.

Question: What makes a good file?

Dr. Emanuele Ambu: The ideal instruments should be reliable. It is particularly important that the files are fracture resistant and can be used several times.

Question: What advice would you give to young colleagues for their career path when they start in endodontics?

Dr. Emanuele Ambu: I would strongly advise young colleagues when starting their endodontic career to observe the endodontic treatment protocols and guidelines and use high-quality instruments. We use certain instruments and units for a very



long time in our professional life, particularly because they are of good quality. For example, I have been working since 1993 with my first Root ZX, which is still in good working order. I use it together with some newer Apex Locators from Morita, which I have in place ready for daily use.

Editor: Dr. Ambu, thank you for the informative interview and that you have taken time to talk to us.

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