“I’m in love”

Why dentists prefer to use AquaCare

Abrasion has long been discussed as a treatment in all areas of dentistry. With AquaCare, UK-based Velopex International has introduced an innovative and contactless way to abrade and polish teeth. The unit combines four powder cartridge systems with an easy-to-use multi-function handle— that can even double via the foot control as a 3-in-1!

Application for periodontists, endodontists and orthodontists?

AquaCare is capable of delivering abrading and prophylaxis media all via the same handpiece. Why buy a separate unit when all one needs to do is change the cartridge? Our multi-patient cartridge concept provides the clinician with the capability of either changing the cartridge (approximately 40 seconds) on the AquaCare or changing media at the flick of the switch (1 second) on the AquaCare Twin. So what are the options? Our cartridges are colour-coded for easy recognition: 29µl aluminium oxide (blue), 53µl aluminium oxide (red), sodium bicarbonate (white) and 54µl desensitising and remineralising powder with 99.5 per cent Novamin (green). Novamin can also be found (in significantly less percentage) in NUPRO Extra Care prophy powder and Sensodyne's Repair and Protect toothpaste.

Fig. 1: Dr Pasquale Venuti used 53 micron aluminium oxide, then used electrosurgery and isolated by means of Ferris' Clamps and teflon. The image is after sandblasting and before etching.

Velopex International will present AquaCare at the coming Dentistry Show in Birmingham. Right before the event, Dental Tribune talked to Keith Morgan, Sales & Marketing Manager, about the next big step in Contactless Dentistry.

Dental Tribune: Many dentists in the US and Europe still prefer rotary cutting instruments and their use has been taught at dental schools and faculties for many years. Why do you see a need for change?

Keith Morgan: Dentistry is continuing the transition from mechanical dentistry to adhesive dentistry. A growing number of clinicians, academics and key opinion leaders are accepting that fluid abrasion enhances the tooth surface for increased efficacy of bonding—it is also an invaluable tool in the process of tooth stain removal. It is less invasive for the patient and there is no noise, vibration, generation of heat or creation of any unpleasant smells. This process is inexpensive, quick and incredibly effective. Many dental schools teach abrasion techniques, including those in Germany, the world’s second largest dental economy. Elsewhere, abrasion is taking hold and some leading dental institutions now have an MSc programme.

Apart from the dentist’s perspective, patients too are driving the change. Air polishing and fluid abrasion are more convenient and safe for patients. We have prepared a leaflet for patients that answers frequent questions about our technology. Dr Walter Devoto, founder of Styleitaliano and a leader in aesthetic and conservative dentistry, appears in the image. The moment, he received the AquaCare unit, he simply said “Finally, the sandblaster of my dreams!” What is really “What we needed!” After two weeks, all he could say was “I’m in love!” He loves it because his patients love it. AquaCare has become the official partner of Styleitaliano and it will soon be publishing cases on www.styleitaliano.org.

What is the basic mechanism of AquaCare and how does the handpiece work?

AquaCare introduces, for example, a preferred solution. Increasingly, clinicians are using 54µl for periodontic, endodontic, orthodontic, cleaning and paediatric treatments. Only in AquaCare units can you change settings of pressure, solution and medium to allow one to remove stains at 275 bar (275 kPa), clear fissures by abrading and cutting at around 5 bar (500 kPa) and work subgingivally at around 1 bar (100 kPa). Our multi-patient cartridge concept provides the clinician with choice, freedom and flexibility to interpret the clinical situation and provide his or her preferred solution. Increasingly, patients are using 54µl for periodontic, endodontic, orthodontic, cleaning and paediatric treatments. Only in AquaCare units can you change settings of pressure, solution and medium to allow one to remove stains at 275 bar (275 kPa), clear fissures by abrading and cutting at around 5 bar (500 kPa), and work subgingivally at around 1 bar (100 kPa). Important note: In order to work subgingivally, the pressure must be reduced while remaining 3-5 mm supragingival.

What are the major advantages of the AquaCare and AquaCare Twin systems for general dentists? Could you also please explain the areas of application for periodontists, endodontists and orthodontists?

Velopex International has coined the term “contactless dentistry”. Does contactless dentistry really have the potential to revolutionise common dental treatments, such as cutting, caries removal, cavity preparation, cleaning and polishing? What is your vision?

Fig. 2: Dr Thomas Taha used AquaCare 53 micron aluminium oxide cutting powder to remove fractured and decayed hypomineralised tooth tissue without the need for drilling.

Across the world, contactless interactions are common in our daily life. Now dentists can offer patients contactless dentistry. Good preventive dentistry and oral health care can help prevent cavities, gingivitis and periodontal disease, keeping patients’ smiles happy and healthy. Our patient leaflet serves to aid the dental health care professional by explaining the gentle effect of AquaCare on the patient’s teeth and gums. Patients know about contactless and enjoy the speed of interaction, and research indicates that consumers are likely to spend more money owing to the ease of interaction. A practice that introduces, for example, a “Power Clean” under the brand of contactless dentistry might benefit in this regard too. Contactless dentistry is not exclusively for prophylactic treatments. Other treatments include preparations for Class V cavities, use in orthodontic de-bonding and bracket removal, and abrasion of occlusal brown spot lesions prior to fissure sealing (without the needle)—another practice-building enhancement, equating to the UK NHS to 3 UDA’s.

Fig. 3: Dr Jason Smithison: Particle abrasion with 29 micron aluminium oxide to remove prismatic enamel and improve bond strength prior to prep direct bonding to close black triangles which were secondary to periodontal disease.

Is AquaCare available worldwide or just in the US and Europe?

Dr Walter Devoto, Founder of STYLE ITALIANO, with the AquaCare Twin unit: “Finally, the sandblaster of my dreams!”

Velopex International has prepared a poster titled “A Gentle Effect of AquaCare on the Patient’s Teeth and Gums.”

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