

Interview with Professor Emanuel Adrian Bratu on the new W&H piezosurgical instruments

“The effectiveness of the saws is impressive”

Professor Emanuel Bratu, maxillofacial surgeon, oral surgeon and prosthodontist, is head of the implantology departments at two Romanian universities. He runs a renowned private hospital in Timisoara and is an internationally known researcher. In the interview, Bratu explains why he considers that the W&H Piezomed piezosurgical device, and particularly two patented saws, have become essential for bone surgery.

Professor
Emanuel Bratu



Professor Bratu, what is your experience with the new B6/B7 saws for the W&H Piezomed?

These saws feel completely different from previously available piezosurgical instruments. They are really very effective. We noticed immediately that the Piezomed B6/B7 work much faster and are easier to guide in bone, particularly in thick bone layers. According to W&H, this is due to the high power output of the surgical unit combined with the very fine teeth and the small diameter of the saw blades of only 0.25 mm.

But don't you think that rotary instruments or microsaws are still more effective?

Most dentists and oral surgeons have much more experience with rotary instruments. But piezosurgical instruments with their special micro-oscillation cut more precisely and are easier to manage. They are now at least as effective as rotary instruments. In addition, the bone loss is inferior compared to rotary saws or milling cutters. Another very important factor is the improved overview: The coolant is

set in motion by the ultrashort oscillations of the instruments. This causes a microcoagulation effect at the surgical site and thus reduces bleeding. Furthermore, the quadruple LED ring of the Piezomed provides a very bright lighting.

For what indications do you use the saws?

We routinely use the instruments for harvesting bone blocks and splitting alveolar ridges. We also use the Piezomed B6/B7 for the osteotomy of impacted teeth and for removing failed implants. All indications that require deep, clean cuts.

Is overheating of bone a factor to be considered with deep preparations?

Yes, this problem can't not be ignored. In other systems, the coolant comes out of the handpiece of the instrument, but is relatively distant from the surgical site. In the hands of inexperienced clinicians, overheating can result, particularly during deep cuts. In contrast, the coolant outlet of the Piezomed is close to the instrument tip. In my experience, this improves safety and gives better results.

Could you briefly describe your procedure for mobilizing bone blocks for transplantation?

We prefer to harvest bone from the external oblique ridge of the posterior mandible, not from the interforaminal region. After the soft-tissue incision, we use the new saws to define the amount of bone to harvest. With this approach, we also use them for the entire preparation in almost 80 per cent of all cases. We may also use other piezo instruments and then at the end a chisel to mobilize the block. We find this a very effective surgical technique.

Could you give us a few surgical tips and tricks from your hospital?

We like to use the sandwich technique for augmentation in the lateral mandible. A bone cover is prepared with the piezo saw and the crestal fragment is fixed with microscrews. We place a mixture of autologous bone and xenogenic bone replacement material in between. This works very reliably. You should always ensure sufficiently dimensioned vertical cuts when splitting the alveolar ridge in the mandible. Otherwise the bone may fracture easily.

What do you consider to be the advantages of piezo surgery in relation to oral tissue?

I consider piezo surgery a great leap forward in oral surgery. The technique makes bone preparation safer and easier. Little bone is lost, for example in extractions. This is very important in the aesthetic zone, particularly if immediate implantation is planned. Piezo surgery is also safer for the soft tissue: Injuries to membranes in the sinus are basically history, as are nerve injuries when bone blocks are being harvested. Data indicating reduced postoperative swelling and pain are also available. Piezo sur-

gery is also ideal for the preparation of sinus septa. And last but not least, our patients benefit from the atraumatic nature of this technology.

Your hospital in Timisoara offers oral surgery and prosthetic reconstruction with a focus on implantology. Do you also use your Piezomed device for other indications?

We also use piezo for surgical crown extensions and in periodontal surgery.

In conclusion, a few words about another special feature of the Piezomed: What are the benefits of the automatic instrument detection?

This is certainly a useful feature. It saves time and ensures that we always work with the correct power settings and cooling, especially in difficult and complex operations.

Thank you for the interesting interview, Professor Bratu.

The interview was conducted by Dr Jan Hermann Koch.

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