In the last years I found support on the web for my clinical practice and Style Italiano Endodontics was a source of interesting tips and tricks. When some colleagues posted about squirting technique, I started wandering what it was. I tried to Google this technique, but the results regarding endodontics were few and below my expectations. I thought that it was a mysterious obturation technique.

Even on Pubmed there were few results. The first article about this technique was published in 1977 by Yee, F.S. and others. Three-dimensional obturation of the root canal using injection-molded, thermoplasticized dental gutta-percha. J Endod 3(5):168-174, 1977. In this article the Colleagues explained the technique and the armamentarium employed in vitro. Later, in 1981, Marlin published an in vivo study in which this technique was employed with success.

Also John Stropko published an article about this technique, using a modern armamentarium.

After the observation of these articles I thought squirting was a particular and complicated technique, with a long learning curve.

In this video the entire procedure to obturate with squirting technique.
This is the first case I did employing this technique. I tried the technique in a young guy with an upper wisdom tooth, candidate to extraction, with a complex anatomy and limited mouth opening. The result was so nice that I decided to do a cuspal coverage. Two years later the tooth showed no kind of clinical and radiographic problem. For this reason I decided to increase my knowledge about the technique but Colleagues strongly discouraged me to utilize this technique because of the risk of getting an overfilling, a short filling, an incomplete 3d filling and for this reasons I abandoned this technique.
Then it happened that my System B stopped working. I wasn’t able to obturate the canal with warm gutta-percha but I had my Obtura III max and…….Ok let’s squirt! The results was amazing, few minutes to obturate the canals, no cone rx, more time available in my schedule. The office staff was very happy to reduce working time in this simple way. Could be the beginner’s luck but these cases were amazing! I increased the use of this technique in my clinical practice, and now I want to share my protocol and to stress, in my opinion, what are the indications and limits of it.

The fundamental rule to apply this technique is the adequate taper.
If there are parallel walls, or inverse taper the technique is very not advisable. Just don’t use it; MTA is the better choice.
Foramen size bigger than 50 are contraindicated.
Apical lesions may sometimes increase the risk of overfilling.
Armamentarium: Sealer, Obtura III Max, Pluggers, Paper points.
Technique: After a correct cleaning and shaping it's necessary to set the plugger. In general I prefer to set the pluggers following the Schilder technique. One plugger for the apical third and one for the coronal third. It isn’t important how close to the apex it goes, I want to know how I can put my plugger into the canal safely. In general more than 90% of cases the Machtou plugger 1 is utilized for the apical compaction, and the 2 or the 3 for the coronal pack.

Fig. 9 It’s important to know the dimension of our plugger and Obtura needle to understand the limits and the indication of the technique.
Before putting the needle into the canal check if it is clean. In case of dirty needle you can clean easily with Orange Solvent.
Now the needle is ready. Prior to putting the needle into the root canal, clean the excess of guttapercha. For beginners, it's very helpful to place a silicone stop to facilitate the entire procedure.
Fig. 12

A Gutta-percha gun with a medium needle, 23 G at 200 degrees is inserted into the canal, just a little less than the needle keep contact with the dentinal wall. In general with preparation from 25 .06 to 30.09 the needle will stop at 4 to 7 mm from the apex. For 40.08 I prefer the needle 20 G. Â
Then I wait until 10 seconds for each canal and I press the trigger until I get a feeling of pushback, a limited, very slight apical resistance can be exerted.
Then a plugger is inserted into the canal to pack the apical gutta-percha. Then a new block of gutta-percha is inserted into the canal up to the pulp chamber orifice. Sometimes in case of curved canal or thin canals a single mass of gutta-percha is necessary, then only a single packing at pulp chamber orifice level is needed. Do you think this is simple? Do you think this is easy? YES, it’s a very simple, and easy technique. What are the indications of this kind of technique? In the Literature or on the web there is no indication or contraindication of this technique, while, in my experience, these are the indications:

Simple case, vital, without lesion, with preparation F2 for vestibular canals and Â F3 for the palatal.
Curved and thin Canals: the gutta-percha is really soft and in case of curved canals it's a valid alternative to thermafil.
Fig. 17

Blocked canal. This case was referred by a Colleague that doesn’t reach the working length. I had the same problem, actually, so I spent a lot of time in irrigation with Endoultra and then I did Squirt Technique.
Another case similar to the earlier one; in this lower premolar, I couldn't reach the working length. In these cases, it's more important to have a good strategy for the treatment to respect the original anatomy. After a correct cleaning and shaping until the block I retried to achieve the W.L but with any kind of result. The obturation showed alteration of the anatomy due to the previous treatment.
Confluent canals are always a challenge, usually they have a lot of anastomoses; in this situation it is imperative to clean all endodontic space, only clean space can be obturated. In this case the main canal was obturated with thermafil, the confluent canals with Squirting Technique.
Apical Bifurcation. In this case I utilized protaper F2 in mesial root and F3 in distal root, My obturation fill the original bifurcation; just a little bit overfilled, but the endodontic space is 3d filled. After one year no Radiographic or Clinical signs of pathology.
This is the answer to the FAQ:

How are you sure that the Guttapercha doesn’t stay short? If you use a proper shaping technique and a proper Obturation Technique, it’s impossible to be short. And if this happens like this case it’s necessary to remove the guttapercha (it’s very very easy) and reutilize your last finishing rotary file.

Only the clean areas can be obturated. Obturation is a very important step. The Squirt Technique is a very easy technique. As all techniques there are indications and contraindications to consider. In difficult cases like blocks or ledges it’s my first choice. The learning curve is very easy also for beginners. Remember only canals shaped in a correct manner can be filled with guttapercha tridimensionally.

Clinical Cases, more indications, advantage will be available on website.
Stay tuned