



The middle mesial is clear only at a severe angle that cuts off the rest of the tooth. (DTI/Photo provided by Patrick Wahl, DMD, MBA)

# The last microscope skeptic

by Patrick Wahl, DMD, MBA

**I didn't have a microscope, and I didn't need one. And I sure didn't like being lectured to or told how to live my life by those who had them. I had come back into practice in 2006 after a number of years away when I was speaking and consulting full-time. I returned to a specialty that seemed to have passed me by.**

When I first practiced in the 1990s, microscopes had been the exception. Now, they had become the rule. But I already had an endless wish list of needed supplies and equipment in addition to all of those expensive rotary files. A microscope just wasn't my first priority.

Practicing again after several years away was challenging. I sought out all of the information and help I could get, and began participating in the ROOTS e-mail discussion forum. I was amazed by what my colleagues were posting. What is a middle mesial canal? I didn't remember any mention of them during my endodontic residency in the early 1990s.

Perhaps I could ignore canals that probably weren't there. But there were several occasions when I could not find canals that I knew were there. Where is the mesial-lingual canal on this mandibular molar? How embarrassing! There is such a thing as a mandibular molar with only two canals, but I knew this wasn't one of them. I had to refer the patient to a real endodontist — one with a microscope.

A friend of mine and a world-class endodontist, Bill Watson, told me that one day, I would think of the microscope as I do the rubber dam — I won't want to work without one, because it makes my life easier. Bill's remark stayed with me. I never did like the saying, "You can't treat what you can't see," because I had been treating things I couldn't see every day for years. But Bill's point about the microscope, like the rubber dam, was the microscope makes life easier! Now that was right up my alley.

Soon, I had accumulated most of the supplies I really needed. But I was getting tired of working blindly. Let's face it; that's what I was doing. I couldn't see anything with my 2.5x loupes that I couldn't see without them. And my 4.5x loupes gave me a headache. I dreaded putting them on, because my assistant would have to orient me where to look. They were heavy and there was very little depth of field. It was unnatural, and I avoided them. There had to be a better way.

I researched microscopes for years. The prices were daunting. I have friends that have multiple microscopes, each costing US\$45,000! For that price, I want to be able to put the top down and drive it around on weekends! I had concerns about buying a used microscope, and even most of the used ones often cost almost as much as my first car. But I had also been hearing some good things about the Seiler 202 — a stripped-down, basic microscope that did the job, and from a company with a great reputation. I could get a new Seiler 202 for far less than many used microscopes.

Sadly, I learned that the 202 had been discontinued, but I was excited to find out why: the Seiler iQ would replace it, with improved lighting, optics and construction. Now was the time, and the Seiler iQ would be my choice.

I bought two of the new Seiler iQs, one for each of the offices in which I work, and I'm thrilled with them. What is most remarkable to me is how easy it is to use a microscope in endodontics. I had been afraid microscopes would be especially cumbersome and difficult to use, but the opposite has been the case.

I actually find the microscope much easier and more natural to use than loupes, at least easier to use than high-magnification loupes. The lowest power on the microscope is superior to the highest level on the loupes that I had used. And the highest power on the Seiler iQ is far more than I think I'll ever need.

The microscope also has a larger field of view, and the light is so bright you can usually see all the way down the canal to the apex. If it gets any brighter, I just might be able to see the future!

Why pay more to get less? I am amazed at the quality and ease of use of the Seiler iQ. There is a learning curve when it comes to mastering all its uses, but I was able to pull it over and see everything I needed to see on day one with my very first patient. The construction is rock solid and gorgeous. It goes where

you need it, stays where you put it, and even comes standard with the inclinable head that is so necessary for dentistry.

Since adopting the microscope into my routine, I have already found a number of fourth canals in maxillary molars that I would not have found without the microscope. What is remarkable is how easy it is — how obvious the canals are with the magnification and light, and how easy it is to use a microscope for endodontics.

Some of the fourth canals I would have found without the microscope, but I would have done so blindly, and would never have really known what I was dealing with. It is surprising how clear everything is under the microscope. And with the microscope, I can use a Munce bur ([www.cjmengineering.com](http://www.cjmengineering.com)) — a surgical length bur with a strong but thin shaft — and actually see what I'm doing. Wow!

Last week, I found a mesio-lingual canal in a lower molar that I would not have found without the microscope. Again, what is remarkable is how easy and obvious it was as soon as I pulled the microscope over.

It was especially gratifying to me because I had sent two such cases to the best endodontist I know, Dr. Jung Kim in Wilmington, Del., last year when I couldn't find them. They were probably hiding in the exact same configuration.

I found the mesial-buccal canal right away upon access. It was clearly a mesial-buccal canal, and it was equally clear there was an unfound mesial-lingual as well. No luck uncovering a mesial-lingual canal with a bur. No luck with an ultrasonic. No nothing.

I pulled the microscope over. It was obvious under such bright light and magnification that there was a ledge of dentin overhanging the lingual aspect of the mesial-buccal canal, and almost certainly a canal underneath. Indeed, the mesial-lingual canal was directly adjacent to the mesial-buccal canal. It could not have been easier to use a Munce bur to uncover the ledge.

I used to believe that only burs could uncover canals. Now, I am learning that often, our burs have already uncovered canals, but they will remain hidden under ledges, invisible to the naked eye without the magnification and light provided so easily by the microscope.

Just yesterday, I found my first middle mesial canal. Oh, I know that others have been finding them routinely for 15 years. Now, I will be, too.

At the lowest level of magnification (5x), it was as if there were three tiny light bulbs along the mesial aspect of the access floor — one bright white light corresponding to the mesial buccal canal; one bright light corresponding to the mesial lingual canal and an equally clear and bright light in the middle. And I had never troughed between the mesial buccal and mesial lingual canals — I never had to. The bright light representing that third mesial canal was already visible.

I no longer want to do endodontics without a microscope, just as I would not want to do endodontics without a rubber dam. If you are interested in endodontics, if you treat any molars at all, don't waste money on loupes. Get a Seiler iQ floor mount.

It's affordable, extremely simple and natural to use, and its quality construction is obvious, like closing a door on a Mercedes.

Thank you, Glenn van As ([glennvanas@mac.com](mailto:glennvanas@mac.com)). Glenn is a general dentist who uses a microscope for every procedure. His DVD taught me everything I needed to know about microscopes, even before I bought one. I review it on occasion and pick up more tips each time. Thank you, Stefan Luger ([www.dentalmicroscopy.com](http://www.dentalmicroscopy.com)). Stefan is the microscope consultant who sold me the microscopes and made sure they were installed correctly. Most of all, I want to thank the ROOTS endodontic e-mail discussion forum ([www.rxroots.com](http://www.rxroots.com)), which helped me along the whole way. I hope you will join the discussion.

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### **About the author**



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