

ABSTRACT OF LECTURE

DH Symposium : 飛躍のヒントはここにある
~マイクロビギナーからその先へ!~

4月25日(日) 12:30~

座長：大野 真美 カガミ歯科医院 (大阪府)

使い方で幅が広がる「背面ミラーテクニック」

岩山亜里奈 (和歌山県勤務)

Different uses to expand the “back surface mirror technique”

Arina Iwayama (Wakayama)

苦手を克服しよう~屈曲チップとストレートチップの使い方~

岡由美 (兵庫県勤務)

Get over your weak points!~How to use curved or straight tips for scaling with microscope~

Yumi Oka (Hyogo)

実践！顕微鏡下でのペリオドンタルインスツルメンテーション

佐藤由美 (東京都勤務)

The Practice ! Periodontal Instrumentation with Microscope

Yumi Sato(Tokyo)

Different uses to expand the “back surface mirror technique”

Arina Iwayama

Hatanaka Dental Clinic



Recently, dental hygienists' opportunity to use microscope in clinical practice has increased. However, such opportunities are not common yet, and few clinics enable dental hygienists to regularly use expensive microscopes in everyday clinical practice. Therefore, although knowledge can be gained by books and technique can be improved by mutual training or with mannequins, the actual clinical utilization is limited, so the usage of microscope tends to be monotonous, and many cannot break out from the beginner phase.

Hired as a new graduate in 2016, my experience as a dental hygienist is only five years. However, thanks to the fortunate environment where the use of microscope in daily clinical practice was able from the first year, and with advice from senior hygienists, knowledge gained by conferences and study groups, my microscope technique progressed rapidly.

The "back surface mirror technique" introduced here is the most useful technique in dental hygienist work, which allowed my progress, and a method I am happy to introduce.

Generally, dentists' microscope methods are often used partially in the oral cavity such as root canal treatment and periodontal surgery, but dental hygienists' work such as scaling are often full-mouth treatments, where microscopes must be used within a limited time. Therefore, reducing unnecessary movements and obtaining a clear view is important, and the double-sided mirror introduced in this lecture is helpful in such circumstances. Particularly, the actual clinical application will be explained, focusing on the mirror technique using the back surface, which is the greatest feature of double-sided mirrors.

In addition, the surface finishing of high reflection mirrors currently on the market differs depending on manufacturers. Therefore, various characteristics are recognized in the mirror image projected on the microscope. Comparison between the double-sided mirror used in this lecture and other manufacturers will be explained for useful future clinical practice.

Professional career

2016 Graduated from Wakayama Dental Hygienist School

2016 Dental hygienist at Medical Corporation Shoeikai, Hatanaka Dental Clinic

Affiliation society

Member of Japan Association of Microscopic Dentistry

Get over your weak points! -How to use curved or straight tips for scaling with microscope-

Yumi Oka



Everyone has weak points in performance with operative microscope. For example, difficulty of treatment in lower lingual site by touching the mirror with teeth, bad mirror position by tongue pressure, and obstruction by splash of sonic devices. How to perform effective treatment, focused on lower lingual site where any hygienist has weak points, comparison the position and tools and optimal amount of water of the chip is demonstrated in this session.

Instruction of the curved chip named 'K-1 chip' and the straight chip named 'Full arch maintenance chip' using in lower lingual left side and right side.

Using K-1 chip, we could treatment in less time with vertical, horizon and sweeping stroke in shallow periodontal pocket by line-contacting. Furthermore, K-1R and K-1L chip enabled to reach the difficult multiple roots by their curved features. On the other hand, using Full arch maintenance chip, we could treatment in root channel or narrow deep pocket with erasing stroke, moving horizontally in 1mm width, because K-1 chip was mis-matched the root surface by curved angle.

Weak points in dental hygiene work will be get over by using operative microscope, and understanding tips and chips.

Professional career

1996 Graduated from Dental Hygienist School of Kochi Gakuen College

1999 Terada Dental Clinic

2006 Freelance Hygienist work at 6 clinics

Affiliation society

Certificated Hygienist of Japan Association of Microscopic Dentistry

Certificated Hygienist of Japan Society of Periodontology

The Practice!

Periodontal Instrumentation with Microscope

Yumi Sato

Ichikawa Dental Clinic



I have been five years since I started using a microscope. Prior to that, I worked as a periodontal certified dental hygienist at a dental clinic specializing in periodontal disease. Since the enhanced technology of microscope joined to my knowledge and experience, my clinical practice has changed significantly. Especially in debridement,

how selected instrument work on tartar brought a lot of credibility. There are remarkable changes in instrumentations by measuring the locations of the root surface and tartar on treatment.

This time, I focus on how dental hygienists use microscopes efficiently during initial preparation.

The plaque retention factor, which is important for periodontal therapy, can be reliably seen with a microscope, such as caries, tartar, malformed tooth, and compatibility of faulty dental restoration. In addition, by using a microscope for subgingival calculus, which has been treated with sensation and imagination, it has become visible from the invisible. In addition, microscope made subgingival calculus treatments “visible treatment” instead of “invisible, intuitive and imaginative treatment” in the past.

Therefore, in order to make the best use of knowledge, experience and microscope technology in periodontal therapy, various ideas and both basic and practical schemes are required. For example, it is important to create a good environment that is easy for the practitioner to treat, considering practitioner's positioning, mirror technique, how to handle the three-way syringe, and the settings around the unit.

It is also essential to find an accurate and a minimally invasive treatment for a patient on periodontal therapy.

Always need to check the condition in the oral cavity, recognize the state of plaque and tartar, and select an appropriate instrument so that there is no damage to the gums. This kind of treatment is possible only with a microscope. The minimally invasive treatment makes it easier to have patient's cooperation and showing the treatment-cam makes it happen to get positive participation and agreement.

At this symposium, I would like to share with you the expertise and tips for dental hygienists to treat periodontal disease with microscope, and the joy of "diagnosing".

Professional career

Graduated from The Nippon Dental University College at Tokyo (1994)

1994-2015 Arai Dental Clinic

2016- Ichikawa Dental Clinic

Affiliation society

Member of Japan Association of Microscopic Dentistry,
Japanese Society Periodontology,
The Japanese Academy of Clinical Periodontology,
The Academy of Clinical Dentistry