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Completion Report of "Scleral Contact Lens Fitting"



Organized by: Department of Optometry

Date: 13th March 2024

Venue: Swami Vivekananda University

Workup Report: "Scleral Contact Lens Fitting"

Date: 13th March 2024

Event: Workshop on "Scleral Contact Lens"

Speaker: Mr. Gagan Sahni

Location: Swami Vivekananda University

Organized by: Department of Optometry

Introduction:

On 13th March 2024, a highly informative and interactive workshop on "Scleral Contact Lenses" was held, led by Mr. Gagan Sahni, a renowned expert in contact lens fitting and ocular health. The workshop aimed to provide both theoretical knowledge and practical experience on fitting scleral contact lenses, focusing on the latest techniques and best practices in the field. Scleral lenses, known for their ability to provide excellent visual correction and comfort for patients with irregular corneas, were the primary focus of the session. Students and practitioners were given hands-on training, which included scleral lens fitting techniques, ensuring they gained a comprehensive understanding of this specialized form of vision correction.

Workshop Overview:

The workshop consisted of a detailed theoretical session followed by a practical, hands-on training segment. Mr. Sahni covered the fundamentals of scleral contact lenses, including their benefits, fitting procedures, patient selection, and troubleshooting. The highlight of the workshop was the hands-on fitting session, where participants had the opportunity to fit scleral contact lenses on real patients under Mr. Sahni's guidance.



Key Highlights of the Workshop:

1. Introduction to Scleral Contact Lenses:

Mr. Sahni began the workshop by explaining the anatomy and design of scleral lenses, noting their large diameter and the unique way they vault over the cornea, resting on the sclera (the white part of the eye). He discussed the various conditions that make scleral lenses an ideal solution, such as keratoconus, post-surgical eyes, severe dry eye, and irregular corneas. These lenses are designed to provide comfort and sharp vision for patients who cannot wear traditional contact lenses due to corneal irregularities.

2. Benefits of Scleral Lenses:

Mr. Sahni highlighted the key benefits of scleral lenses, including:

Improved Comfort: They create a tear reservoir between the lens and the cornea, which helps to keep the eye hydrated.

Enhanced Vision: The lenses correct refractive errors effectively by providing a smooth, even optical surface over the cornea.

Increased Stability: Scleral lenses provide better stability and are less likely to dislodge compared to traditional contact lenses.

Specialized Use: Scleral lenses are ideal for patients with conditions like irregular astigmatism, dry eye, and post-surgical refractive errors.

3. Patient Selection:

Mr. Sahni emphasized the importance of proper patient selection when prescribing scleral lenses. He dis-

cussed the conditions that benefit from scleral lenses and provided guidance on how to assess patients to ensure they are suitable candidates for this type of lens.

Factors such as corneal curvature, visual acuity, patient history, and ocular health were examined, along with the patient's ability to handle specialized lenses and the long-term commitment required for proper maintenance.

4. Scleral Lens Fitting Procedure:

Mr. Sahni provided a step-by-step guide to fitting scleral lenses:

Initial Measurements: Gathering accurate measurements of the cornea, including corneal curvature and scleral topography. Mr. Sahni demonstrated how to use topographers and other diagnostic tools for mapping the cornea and sclera.

Lens Selection: Selecting the appropriate lens design and size based on the patient's corneal measurements.

Lens Application: Applying the lens on the patient's eye to assess the fit. Mr. Sahni discussed the importance of checking for proper alignment, centration, and clear vision.

Fluorescein Pattern: Using fluorescein dye to assess the fit of the lens and check for any areas of excessive pressure or poor alignment.

Final Assessment: Ensuring that the lens provides good vision, comfort, and does not interfere with the patient's normal blinking and tear production.



5. Troubleshooting and Adjustments:

Mr. Sahni discussed common issues that may arise during scleral lens fitting, such as lens decentration, gaps in the tear reservoir, and discomfort. He provided practical solutions to these problems, including adjusting the lens base curve, modifying the lens diameter, or changing the lens design.

He also explained how to use lens modifications and adjustments to improve fit and comfort, depending on the patient's specific requirements.

6. Hands-on Training:

The workshop's most engaging component was the hands-on training, where students had the opportunity to fit scleral contact lenses on real patients. Under Mr. Sahni's guidance, participants practiced:

Measuring corneal and scleral curvature using advanced tools like topographers and orbscan systems.

Lens fitting using various scleral lens designs, adjusting based on the patient's eye shape and needs.

Assessing lens fit using fluorescein to ensure the lens aligned properly and created a stable tear reservoir.

Troubleshooting fit issues by adjusting the lens or re-measuring key parameters.

Students were able to get hands-on experience with different sizes and shapes of scleral lenses, gaining a deeper understanding of how small changes can make a significant difference in fit and comfort.

7. Post-Fitting Care and Maintenance:

Mr. Sahni also discussed the essential post-fitting care and maintenance routines for scleral lenses, emphasizing the importance of lens cleaning, disinfection, and lens storage. He guided participants on educating patients about the proper care procedures to ensure the longevity of the lenses and avoid complications such as infection or discomfort.

8. Case Studies and Real-Life Applications:

Throughout the session, Mr. Sahni shared real-life case studies of patients who benefited from scleral lenses. These case studies illustrated how scleral lenses were used to treat various conditions, and how person-

alized fitting and follow-up care played a critical role in improving the patient's quality of life.



9. Q&A Session:

The session concluded with an engaging Q&A segment where students had the opportunity to ask Mr. Sahni questions related to the practical challenges they faced during the hands-on training, as well as theoretical aspects of scleral lens fitting.

Topics discussed included the challenges of fitting in patients with extreme corneal curvature, the latest advancements in scleral lens technology, and tips for improving patient compliance.

Conclusion:

The "Scleral Contact Lens" workshop conducted by Mr. Gagan Sahni on 13th March 2024 was an exceptional learning experience for participants. The combination of theoretical knowledge and hands-on training provided a comprehensive understanding of the scleral lens fitting process. The session allowed students and professionals to apply the concepts they learned in real-world settings, making them better equipped to fit scleral lenses effectively for a range of patients with irregular corneas and specialized needs.

Mr. Sahni's expert guidance and the practical, interactive nature of the session were highly appreciated, ensuring that all attendees left with a stronger foundation in the specialized field of scleral contact lens fitting.

Acknowledgments: We would like to express our gratitude to Mr. Gagan Sahni for his expert presentation and hands-on training, as well as to all the participants for their enthusiasm and active participation.

Report Compiled by: Anusuya Das