

ISRG JOURNAL OF CLINICAL MEDICINE AND MEDICAL RESEARCH [ISRGJCMR]



OPEN ACCESS



ISRG PUBLISHERS

Abbreviated Key Title: ISRG J Clinic.Medici.Medica.Res.

ISSN: 3048-8850 (Online)

Journal homepage: <https://isrgpublishers.com/cmmr/>

Volume – II, Issue - V (September-October) 2025

Frequency: Bimonthly



Exchanging Nails for Eyes: The new hope to cure blindness

Lie Chun Pong

Sch CUHK

| Received: 01.10.2025 | Accepted: 03.10.2025 | Published: 05.10.2025

*Corresponding author: Lie Chun Pong

Sch CUHK

Abstract

In today's world, medicine is thriving, and science and technology are advancing quickly. Many diseases that were once incurable have now been cured, including eye conditions. This article aims to explore new approaches (Exchanging Nails for Eyes) to treating eye diseases from an innovative perspective. It seeks not only to find more practical treatment options but also to offer a fresh path that brings new hope for eye conditions. Additionally, it sincerely hopes to illuminate the lives of those who have lost their vision.

Keywords: Blindness, Nails for Eyes, Exchanging Nails for Eyes, Eye Treatment.

Introduction:

In the 1960s, an authoritative Italian ophthalmologist, Johnny Falcinelli, developed a groundbreaking surgery called "osseous and dental artificial corneal transplantation." This technology not only offered hope to blind people with severe corneal damage to regain their sight but also could restore vision to those whose eyes had been damaged by chemical erosion [1].

Bone-tooth artificial corneal transplantation began in the 1960s and is called "bone-for-eye" surgery. According to Wikipedia, "The treatment method is that the doctor first extracts one of the patient's teeth, then cuts the tooth into a suitable shape, and then makes a small hole in the tooth and implants the artificial lens into it." [1][2].

Discussion:

The principle involves using stem cell regeneration technology to transplant the patient's teeth into the eye. However, the first step is to implant the bone-tooth artificial tissue into the patient's shoulder or other skin tissues. After tissue growth, it can then be carefully implanted onto the front of the eyeball to restore the patient's vision. Since the teeth are the patient's own tissue, rejection is unlikely. More importantly, Stan's surgery uses living tooth transplants, and the free root and flesh types are more conducive to cell tissue regeneration.

So far, literature shows that the success rate of the surgery can reach 80% to 90%. However, even though this technology is mature, it remains uncommon. Currently, only 6 to 7 medical

institutions worldwide can offer these services. The utilization rate of this surgery is still relatively low and has not gained widespread popularity.

One of the main reasons is that the operation is very difficult, and fewer than 10 people can perform it.

Second, this surgery involves many locations and procedures that are not suitable for transplantation, which makes it potentially risky and could cause serious infections over time.

Third, the most important point is that the surgery requires shaping the teeth, which is very difficult to perform. Imagine needing to cut a tooth into the shape of a cornea; this involves thinning and cutting procedures that are complicated and risky. Then, you have to insert living tissue, such as skin tissue, to monitor its growth. The failure rate for this process is actually very high.

Idea Concept:

This article aims to introduce an innovative method, "nail living tissue corneal transplantation," to replace "bone-tooth artificial corneal transplantation" because, first, nails are as thin as the eye's cornea, and second, nails can regenerate. Even if flesh and nails are removed, skin tissue can proliferate rapidly without permanently damaging human tissue.

This method is more effective and efficient than tooth extraction. Second, nails are easier to cut into a suitable shape, and their hardness and thickness more closely resemble the actual corneal tissue. If nails are used to replace teeth, the surgical procedures and connection points are fewer, reducing the risk of surgery and increasing the success rate. This kind of "nails instead of teeth" "Artificial corneal transplantation" is more worth promoting. However, although replacing tooth bone with nails is more effective, in the transplantation of ungual flesh, besides trying to avoid rejection, it is more important to control it to prevent excessive nail proliferation. It is more appropriate to only use flesh-type regeneration connections to link the central front part of the eyeball. How this should be handled depends on the skill of the doctor.

Overall, the "innovative corneal transplantation of nails instead of teeth" is worth further research and practice. Additionally, nails can be polished more quickly to increase the light's refractive index, which could (estimated) restore the patient to more than 100% (full vision).

Compared to traditional technology, the recovery and successful rate is approximately faster and higher. Because of the innovative advantages proposed in this article, the "Innovative Transplantation of a generative Nail-for-Eye" is more deserving of recommend, and the operation method can save key parts during cutting, minimize the patient's implantation wound, shorten recovery time, reduce the risk of surgical infection, and improve the success rate. Additionally, our innovative idea in this article, "Nail-for-Eye," will shorten recovery time and reduce risks.

In conclusion:

This is a new area that deserves exploration and research by the industry. The innovative breakthrough in this article challenges the original inherent operational thinking framework and employs new techniques, including combining laser polishing and nail fretfulness as alternatives. "Nails for Eyes" believes that this surgery is worth researching by the industry.

Disclaimer:

The information (innovative concept) provided is for reference only. The author expressly disclaims any liability for any causality, loss of life, or any other damages resulting from the contents (research). This article only offers innovative ideas. It does not constitute medical diagnosis or prescribe medical treatment for anyone, nor does it involve performing any medical procedures on anyone.

References:

1. Falcinelli G, Falsini B, Taloni M, Colliardo P, Falcinelli G. 2005. Keratoprosthesis for treatment of corneal blindness: Long-term anatomical and functional outcomes in 181 cases. *Archives of Ophthalmology*.
2. Lam, S. C. 2006. "Exchanging teeth for eyes" — New hope for those blinded by corneal diseases. *The Chinese University of Hong Kong Ophthalmology and Visual Sciences*.