

Students Name

Admission Number

Institution

Instructor

Date of Submission

LASIK OPERATION

Corrective Surgical procedure

Introduction

- In this presentation, we take a look at the brief history of LASIK operation, the technology behind LASIK, cases when LASIK is the preferred corrective surgical procedure, and the kind of patient that may or may not need to undergo the LASIK operation.

What is LASIK

- LASIK is “a refractive surgery” that is done to those with myopia, astigmatism and/or hyperopia problem of the eye. Those specialized in LASIK operation are called ophthalmologists.
- LASIK operation requires the use of laser technology and is done only by highly skilled physicians that can operate the advanced refractive surgery in the safest way possible.
- Even though LASIK can be related to some other “surgical corrective procedures” like ASA (Advanced Surface Ablation, also referred to as PRK (Photorefractive Keratectomy), it provides a faster recovery of the eye after the operation(Knorz,192-8).

Brief History of LASIK Operation

- The invent of LASIK technology as a corrective surgical procedure has commonly been attributed to the Spanish ophthalmologist called Barraquer Jose. In 1950, ophthalmologist Jose Barraquer first developed microkeratome. It was from this point that he came up with a technique that could be “used to cut thin flaps in the cornea and alter its shape”, a procedure he referred to as Keratomileusis. Ophthalmologist Jose went ahead to conduct a research on how the cornea could be left unaltered so that “stable and long term results” could be ascertained.

Brief History of LASIK Operation

- The preliminary work of Ophthalmologist Barraquer Jose was later in 1970s, advanced by another scientist named Svyatoslav Fyodorov from USSR. Svyatoslav Fyodorov developed the RK (radial keratotomy).
- The technology, however, did not end there, and by 1983, yet another scientist, renowned as Dr. Trokel Steven from Columbia University improved on the works of the previous scientist, by giving a researched outline journal on the potential benefits of the refractive surgeries.

Brief History of LASIK Operation

- However, the formal introduction of refractive surgical operations was done by the work of Srinivasan Rangaswamy in 1980. He was the one that discovers, after some rigorous lab research, that “an ultraviolet excimer laser could etch living tissues in a precise manner with no thermal damage to the surrounding area”.
- Came 20th of June, 1989, after a series of other experiments and lab researches by different scientists, “the first patent” was granted to Dr. Gholam A. by a U.S officer(Knorz, 192-8).

Snap-view of the LASIK corrective surgical procedure

- Before a LASIK operation can be carried out, a number of necessary procedures have to be followed. The operation as a whole involves the preparation of a thin flap on the patient's eye, folding up the flap "to enable remodeling of the tissues beneath with a laser" and procedurally later on, repositioning the flap and leaving the eye to heal in the post-operative phase(Knorz, 192-8).

Statistics on the LASIK Surgery (Results)

- A survey that was conducted by the American Society of Cataract and Refractive Surgery showed that between 92 and 98 percent of patients that had undergone the LASIK operations were satisfied.
- The result findings also indicated a “95.4 % patient satisfaction” globally. These plus some other researches that were done by different medical and healthcare research agencies like Medical Defense Union (MDU) in UK and the British National Health Services (BNHS) reflected relatively the same results.
- These were indications that even though minor discrepancies had been cited, LASIK technology was more effective and preferable by many patients facing serious eye problems that could be solved through LASIK operations(Knorz, 192-8).

A few of what is required before undergoing the LASIK surgery?

- The FDA (Food and Drugs Administration) approved the LASIK operation for patients above the age of 18 years
- The patient's "eye prescription also needs to be stable for at least a year prior to the surgery"
- FDA also recommended that before a patient can choose to undergo the LASIK operation, he or she should weigh both the benefits and the risks that may be incurred at a personal level.
- They need to understand fully the key issues concerning LASIK surgery and the complications that may possibly be involved during the operations (Knorz, 192-8).

Risks and Complications Involved in LASIK operation

- As per the American Journal of Ophthalmology,” the most common complication involved in the LASIK operation is the incidence of dry eyes” which may be permanent after the operation. This, according to the journal, may in most cases be untreatable.
- Other risks such as the patient “suffering from disturbing visual side, loss of contrast sensitivity, and glare may also be encountered after the LASIK operation.
- “Visual acuity fluctuation, double vision, Wrinkles in flap Decentered ablation, light sensitivity problem are among other problems possibly brought by the LASIK operation
- (Knorz,192-8).

Reference

- Knorz, MC. *Complications of refractive excimer laser surgery. Ophthalmologie*. New York: Oxford University Press .2006. 192–8.