

## Combined phacoemulsification with endoscopic cyclophotocoagulation (ECP) under topical anesthesia instead of local anesthesia

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### Abstract

**Background:** Phacoemulsification also called small incision surgery, is one of the most common type of cataract surgery performed with small incision with self-sealing, requiring one or even no sutures. Phacoemulsification has the advantage of more rapid visual recovery due to the small incision size, and decreased likelihood of suture-induced astigmatism. Endoscopic cyclophotocoagulation (ECP) is an emerging tool in the treatment of glaucoma, Endoscopic photoablation of ciliary processes was first described by Shields in 1985, The American Academy of Ophthalmology concluded in 2001 that ECP is safer than trans-scleral therapy and 10 years later many indications have been suggested for ECP, refractory glaucoma, paediatric glaucoma, aphakic glaucoma and severe corneal disease. In combined phacoemulsification with endoscopic cyclophotocoagulation (ECP), there are many studies which show that phacoemulsification associated with endoscopic cyclophotocoagulation is safe and effective as a primary procedure for combined glaucoma and cataract. It resulted in lowering IOP and a greater reduction than glaucoma medications than cataract extraction alone in medically controlled OAG patients with visually significant cataract. As, in our literature search we did not find any study supporting the same research question. All studies about phacoemulsification with endoscopic cyclophotocoagulation (ECP) have been done under local or intracameral anesthesia.

**Objectives:** To represent our institutional experience of using topical anesthesia in the form of eye drops in phacoemulsification with endoscopic cyclophotocoagulation (ECP) operations and also to describe pain symptoms and patient satisfaction of using topical

anesthesia in phacoemulsification with endoscopic cyclophotocoagulation (ECP) operations.

**Materials & Methods:** 5 cases notes with all patients undergoing phaco-ECP under topical anesthesia were reviewed. All glaucoma subtypes were included. Inclusion Criteria: Patients with immature or mature cataract with controlled/uncontrolled IOP using full anti-glaucoma treatment. Exclusion Criteria: Patients with any previous glaucoma surgery and having inflamed eye. Surgery site: Ophthalmology Department at King Abdullah Medical City, Makkah, KSA. Participants: 5 participants' case notes reviewed. Mean age 55 years. Interventions: All patients received combined phacoemulsification surgery and endoscopic cyclophotocoagulation under topical anesthesia.

**Results:** During surgery, all patients were comfortable without any complain. All patients were asked at the end of procedure to grade pain during procedure out of ten numerically. They grade this pain as mild discomfort during laser grading mean 2 out of 10 pain scale. Conclusions: In this case series we concluded that use of topical anesthesia in form of eye drops is very safe and effective for this combined procedure as it is without any complications associated with local anesthesia.

**Biography:** Bashaer Al Dhahwani is a Senior Medical student at Umm Al-Qura University, Saudi Arabia. He is a member of research center at King Abdullah Medical City. He presented 2 researches on international conferences and is working on 3 current researches.