

### Research Article

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#### [Pattern of ocular diseases among patients attending ophthalmic outpatient department: A cross-sectional study](#)

**Background:** Ocular diseases affect every individual in this world, with the only difference being in the pattern of occurrence of disease depending on age, gender, region, and climatic conditions. In Ethiopia there is shortage of literatures stating pattern of ocular diseases which is very important for planning preventive, curative and rehabilitative health service concerning prevalence of eye problems.

**Objective:** This study is aimed to determine the pattern of eye diseases at Borumeda Hospital, Amhara region, Ethiopia from July 10 to December 15, 2018.

**Method:** Institutional based cross- sectional retrospective study was conducted among 384 patients attending in ophthalmic OPD of Borumeda primary hospital. Nine hundred three newly diagnosed patients who were registered on OPD registration book in the study period were study population. Systematic random sampling was conducted to select study participants from study population. The collected data were then analyzed using descriptive statistics (mean and frequency percentage).

**Results:** From all study participants who had ocular disorders 92(24%) of them were came by Allergic conjunctivitis, followed by cataract 16.9%, refractory disorders 13%, Glaucoma 7.1%, infective conjunctivitis 4.7%, Pterygium 3.1%, Blepharitis 3.1%, NLDO 2.6%, Pseudoepithelium 2.4% and Corneal opacity 2.1%.

**Conclusion:** Significant number of patients 182(47.5%) of them came for treatment of adnexa (lid, margin, conjunctiva, lacrymal system) disorders. So every health professional should be responsible to deliver preventive, curative and rehabilitative services to control the most prevalent ocular disorders.

**Significance of study:** This study will be very important for health managers to distribute medical resources and staffs according to the prevalence of ocular disorders. This study result will be useful for health care workers for planning preventive, curative and rehabilitative health services for those common eye disorders.

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### Research Article

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#### [Changes in intraocular pressure after Nd-Yag laser posterior capsulotomy](#)

The Nd-Yag L has been developed in Europe since the mid-1970s [10]. Today Nd-Yag LPC has become an established procedure for after cataract. Before the Nd-Yag L came into use, the capsulotomy was done by performing a small puncture with a needle knife or 27 gauge needle, either at the time of original operation or as a secondary procedure through the limbus in aphakic or through pars plana in pseudophakic. The Nd-Yag L preferred because it is non-invasive and infection cannot occur. The most important complication is a transient rise in IOP 1-3 hrs of Nd-Yag LPC [1]. Occasionally the pressure rise is high and can cause serious damage to the optic nerve, so that the IOP should be monitored and appropriate measures should be taken if necessary. Only if we can minimize its frequency or, better still, avoid it, altogether, can we accept Nd-Yag L as a safe procedure in our effort to restore vision. In otherwise normal eyes, a mild elevation of IOP is of no consequence because it usually resolves within 24 hour especially when the patient receives anti-glaucoma drugs before and after laser application. However in eyes with pre-existing glaucoma, the incidence of IOP elevation is higher and its duration is longer than in otherwise normal eyes. Some glaucomatous eyes may therefore require additional glaucoma therapy for several weeks following Nd-Yag LPC [3]. So monitoring is particularly important in the cases of glaucoma with optic nerve damage and field loss as these eyes are susceptible to small pressure rises for even a short period. A single rise to 40mmHg for a few hours can cause irreversible damage to the damaged optic nerve and lead to permanent visual loss or even blindness [1]. The purpose of this study is to evaluate the changes in IOP at 1hour, 24hour and 1 week after Nd-Yag LPC.

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[Using correlative microscopy for studying and treatment of Mycoplasma infections of the ophtalmic mucosa](#)

**Purpose:** We have studied in 18-month 21 patients showing kerato-conjunctivitis and/or dermato-blefaritis, where we will find a constant presence of mycoplasma in SEM optical cytology samples. The 21 patients were divided as follows: 7 allergic, 7 alleged allergic and 7 not-allergic, this division it makes between a clinical approach considering clinical history and symptoms. At the first examination, 16 of the 21 patients had a single or multiple infection in which the main pathogenic element was found to be Mycoplasma; the remaining 7, 4 of them were suspected allergic patients, 2 of it, were allergic subjects with the presence of eosinophils or mast cells.

**Material and methods:** All the study is constructed on citological optical microscopy and citological electron scanning microscopy (SEM) images for demonstrate the efficacy of the SEM in clinical approach at allergic, not allergic and suspected allergic patients.

**Therapeutic treatment and Results:** Treatment of the allergic and false allergic patients has made with local somministration of galenic composition with ialuronic acid 3 ml and Tetracycline hydrochloride 30 mg and with low level of cortisone and antisthaminic therapy. This treatment is necessary to eradicate the Mycoplasma infection and counteract toxic action of this pathogen on mucosa.

**Discussion:** After appropriate therapy we note that allergic patients have a greater predisposition to redundancy in infections in the short period (minimum 20 days), while alleged allergic patients have more prolonged infection periods (between 3 and 5 months), with constant presence at low levels of persistent Mycoplasma. The latter continue to show signs and symptoms similar to allergic patients, but with a negative test for tear IgE and absence of eosinophils and/or mast cells, in the optical and SEM samples displayed.

[Two different patterns and outcome of neodymium YAG capsulotomy](#)

Visual impairment is a global health problem. Cataract is responsible for 50% of blindness worldwide [1].

Posterior capsular opacification is the most common late complication of cataract surgery as a result of proliferation of residual lens epithelial cells overall 25% of patients undergoing extra-capsular cataract surgery develops visually significant PCO within 5 years of the operation [2].

Nd: YAG laser provides the advantage of cutting the posterior lens capsule, thereby avoiding and minimizing infection, wound leaks, and other complication of intraocular surgery. Thus Nd:YAG laser capsulotomy is noninvasive, effective and relatively safe technique [3].

However, this procedure is associated with complications such as- postoperative increased intraocular pressure (IOP), cystoid macular edema (CME), disruption of the anterior vitreous surface, uveitis, lens subluxation, increased incidence of retinal detachment and pitting of the IOL [4].

Laser shots can be applied in several patterns such as "Cruciate or Cross pattern", "Can opener", inverted "U-Method" and in a "Circular pattern". Many authors promote the use of a cruciate pattern in the Centre of the visual axis, with the clinician starting off on both axes away from the Centre to avoid pitting the lens centrally [5].

This study mainly aims to analyze the effect of various forms of PCO capsulotomy openings on visual function after Nd: YAG capsulotomy.

[Retinopathy of prematurity - Intersibling divergence of risk factors among twins](#)

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Retinopathy of prematurity (ROP) is a consequence of an arrest in normal retinal neural and vascular development, which determines the aberrant retinal regeneration [1,2].

ROP is a disease process mostly reported in preterm neonates ranging from mild, transient changes in the retina with regression to severe progressive vasoproliferation, scarring, detachment of retina and blindness and it is common blinding disease in children and a major cause of vision loss among preterm infants [3]. Today it is well known that oxygen therapy is not the single causative factor, but many other risk factors play a causative role in the pathogenesis of ROP [4,5].

The risk factors for ROP include oxygen administration, hypoxia, hypercapnia, blood transfusion exchange transfusion, apnea, sepsis and total parenteral nutrition. The incidence of ROP has been reported to be similar in multiple and singleton births [6-8]. Twin studies show that from 70% to 80% of the susceptibility to ROP is conditioned by genetic factors [9,10].

Hence this study is to find out the incidence of ROP in twins in a tertiary care centre in a developing country. It also attempts to identify the difference in risk factors among twins which predispose to ROP in Neonatal Intensive Care Unit.

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