INTRODUCTION
Myasthenia gravis (MG) is an immune mediated neuromuscular disorder in which antibodies are produced against self acetylcholine receptors (AChR) at neuromuscular junction (NMJ) of skeletal muscles. It usually affects middle-aged women.1

MG may present with ocular symptoms alone or in combination with a generalised disease. However, bilateral, symmetrical and variable ptosis with diplopia followed by generalised muscle weakness over a period of months or years is the most common presentation.2

The aim of reporting this case is to familiarise ophthalmologists and health professionals about a rarity in which a middle aged man who presented with unilateral complete external ophthalmoplegia, when examined and investigated in detail, turned out to be a case of MG.

CASE REPORT
A 46-year male, presented with 2 days history of drooping of left upper eyelid and diplopia which was not variable, and not associated with watering, redness, photophobia or decreased vision. There was no history of trauma, fever, vomiting, seizures, generalised weakness, dysphagia or dysarthria. On ocular examination, unaided visual acuity was 6/6 in both the eyes. There was moderate ptosis of left eye along with restriction of movements and binocular diplopia in all gazes (Figure 1). Rest of anterior and posterior examination of both the eyes was unremarkable and forced duction test did not reveal any restriction. Systemic examination was also unremarkable. Ice pack test as well as edrophonium test revealed improvement in ptosis (Figure 2 and 3).

Except for anti-MuSK antibodies, all other investigations such as magnetic resonance imaging (MRI) brain and orbits, computed tomography (CT) scan chest, electromyography and anti-AChR antibodies were unremarkable.

Patient was advised tablet pyridostigmine, 60 mg, twice daily, along with tablet prednisolone, 60 mg daily. Remarkable improvement was seen within a week and at the end of 4 weeks, ptosis and diplopia completely resolved. Steroids were gradually tapered over a period of 4 - 6 weeks.

Patient was counselled about the nature and possible complications of disease and advised regular follow-up.

DISCUSSION
MG is an autoimmune disease with a prevalence of about 100 cases per million population. The reason of autoimmunity against self-antigens and role of thymus in its development is not much clear and several hypotheses prevail. Almost three quarters of patients having a diagnosed MG have either thymic hyperplasia or thymoma. According to a study, MG is a risk factor for extra-thymomal cancers with or without a thymoma.3,4

Clinical presentation varies but generally half of the patients with MG present with problem of extraocular muscles and ptosis. Some progress to generalised MG, others stay in ocular stage for years. Another group may land directly in generalised MG or with rare presentations like difficulty in swallowing, nasal regurgitation, limb weakness, neck and shoulder pain, and even respiratory muscle weakness.5 According to a

CASE REPORT
Unilateral-external Ophthalmoplegia: A Rare Presentation of Myasthenia Gravis
Muhammad Saim Khan, Asad Habib and Imran Basit

ABSTRACT
Myasthenia gravis (MG) is a disease of autoimmunity with variable and diverse clinical presentations. The target tissue is neuromuscular junction of skeletal muscles, where efficient nerve impulse transmission is hampered leading to less effective muscle contraction. Patients of MG usually present with bilateral ptosis, diplopia and fatigability, which may or may not coexist with generalised weakness, dysphagia and dysarthria. A 46-year male presented with unilateral ptosis and diplopia. Except for unilateral moderate ptosis and restriction of extraocular movements, ocular and systemic examination was normal. Both ice pack and tension tests revealed improvement in ptosis. Patient was advised tablet pyridostigmine and prednisolone; and a remarkable improvement was noticed within a week.

Key Words: Myasthenia gravis. Ptosis. External ophthalmoplegia.
study, respiratory failure as acute medical emergency is, in fact, a presenting feature of MG in 14% cases.6 Children usually present early with symptoms of drooping eyelids, deviation of eyes, ophthalmoplegia, or diplopia.7

The diagnosis of MG is confirmed by pharmacological testing using a short acting anti-cholinesterase such as edrophonium or neostigmine. Presence of serum anti-AChR antibodies is highly specific for MG even in subclinical forms. They are positive in 90% of generalized MG cases. Other antibodies such as anti-MuSK antibodies are highly specific for ocular MG and positive in half of those cases where anti-AChR antibodies are negative.8 Radiological investigations such as X-ray chest, CT and MRI are useful diagnostic tools for an associated thymic disease or for ruling out orbital/intracranial mass lesion that may compress cranial nerves and masquerade as MG.

Unusual presentations of MG are commonly reported in literature but to best of our knowledge, we have not found a case of myasthenia gravis with unilateral complete external ophthalmoplegia and an absolutely normal other eye. Chaudhuri et al. also reported a similar unilateral presentation in a 10-month child who was diagnosed as juvenile MG.9 We think, our case of a middle aged man presenting with a relatively acute onset of disease with no previous complaints, is a very rare presentation of MG and is indeed worth reporting.

REFERENCES