7th Iranian International Headache & 2nd joint Headache-Pain Congress

Ocular Causes for Headache

Dr. Fedra Hajizadeh;

Noor ophthalmology research center, Noor Eye Hospital



Pain around the eye can be caused by local ophthalmic disorders or by disease of other structures sharing trigeminal nerve sensory innervation. In general, most ocular causes for pain also cause the eye to be red, thus alerting the examiner to the focality of the problem. However, conditions like eyestrain, intermittent angleclosure glaucoma or neovascular glaucoma, and low-grade intraocular inflammation can be painful and not be associated with obvious redness. Ocular signs and symptoms also occur with numerous other causes of headache. Double vision in association with periocular pain can result from orbital lesions, isolated cranial neuropathies, and cavernous sinus lesions. Pupillary abnormalities like Horner's syndrome may result from a variety of painful conditions, including cluster headache, parasellar neoplasms or aneurysms, internal carotid dissection or occlusion, and Tolosa-Hunt syndrome. Pain with a dilated and unreactive pupil may reflect a benign condition like Adie's syndrome or ophthalmoplegic migraine, or it may herald the presence of a life-threatening posterior communicating artery aneurysm. Headache and transient visual loss can be manifestations of classic migraine, or be symptoms of ocular hypoperfusion from ipsilateral internal carotid occlusion or increased intracranial pressure from pseudotumor cerebri. In a young patient, head pain with a fixed visual deficit may result from optic neuritis, in an older adult, temporal arteritis may be the culprit. Ophthalmologic aspects of headache thus encompass problems that range from simple and benign to complex and formidable.