



LATTICE DEGENERATION

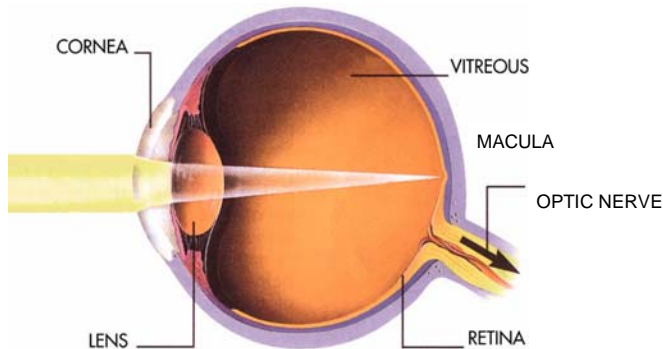
Lattice degeneration is a common peripheral retinal degeneration, characterized by oval or linear patches of retinal thinning. Atrophic retinal holes and tractional retinal tears may complicate lattice degeneration and increase the risk of retinal detachment. Patients with lattice degeneration are typically asymptomatic, and the lesions are

usually an incidental finding of dilated exam.

The acute onset of floaters, flashes of light, peripheral field loss, or central vision loss may indicate the presence of retinal tear or retinal detachment, complications of lattice lesions.

Patients with lattice degeneration should be regularly examined on an annual basis.

HOW THE EYE WORKS



The eye works like a camera. The lens and cornea focus light rays. The retina works like the photographic film in a camera. The hollow center of the eye is filled with a gel called vitreous. When this shrinks, it may pull and tear the retina.

Lattice degeneration is characterized by oval or linear patches of atrophic retina with a reddish base and is usually located within the front portion of the retina. Fine vision is in the macula.

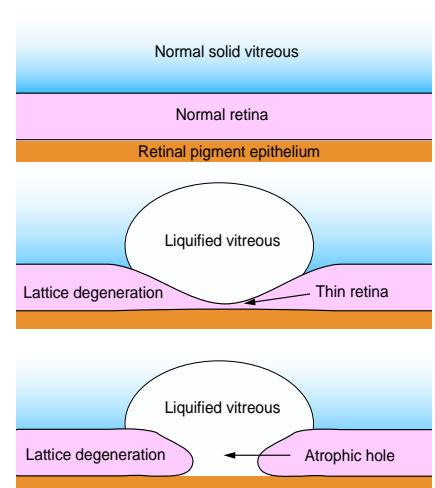
THINNING OF THE RETINA

Lesions may be isolated or multifocal, variable in dimension, and usually are oriented concentric or slightly oblique to the front edge of the retina. Condensed vitreous at the margins of the lattice lesions appear as vitreous opacities and represent regions of increased vitreoretinal adhesion. The vitreous over lattice is liquid. Sclerosed vessels appear as crisscrossing, fine, white lines that account for the name lattice degeneration.

Lattice lesions appear to be due to drop-out of peripheral retinal capillaries, which leads to thinning of all retinal layers. The thinning may become so profound that a full-thickness retinal

hole forms at the lattice lesion.

The best and most often used exam to detect lattice degeneration is indirect ophthalmoscopy with pushing on the eye, or scleral depression to see it on edge.



WHO GETS LATTICE DEGENERATION?

Lattice degeneration affects approximately 10% of the population and is bilateral in 30-50% of affected patients. The prevalence peaks by the second decade and is minimally progressive.

It may be more common in some families. It is

more common in myopic eyes, and correlates with increasing axial length, reaching 15% prevalence in the longest eyes. No reported infectious, trauma, sex, or racial differences exist in lattice degeneration.

CLINICAL COURSE OF LATTICE DEGENERATION

Lattice lesions are believed to develop early in one's lifetime. Features such as crisscrossing sclerotic vessels, pigmentation, and atrophic retinal holes subsequently may develop over many years.

Retinal detachment is a rare complication of lattice degeneration (<1% of patients with lattice). But lattice is associated with as many as 40% of all

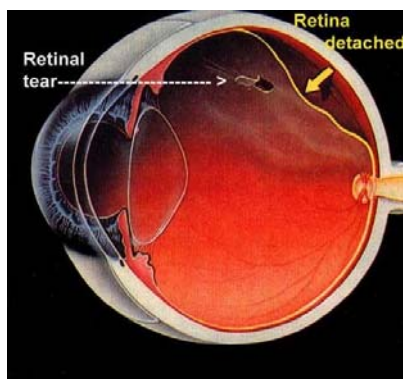
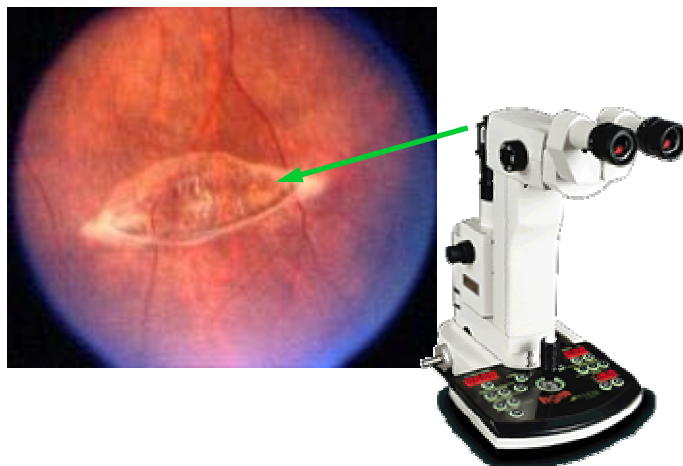
retinal tear-associated detachments.

An acute posterior vitreous detachment complicated by retinal tear formation usually is signaled by the complaint of new-onset floaters and/or flashes. Patients with these complaints constitute a true ophthalmologic emergency and need urgent ophthalmic examination.

LASER TREATMENT FOR LATTICE DEGENERATION

The presence of uncomplicated lattice does not interfere with visual function and does not constitute a high risk for future development of retinal detachment. Prophylactic treatment is clearly indicated only in the context of specific circumstances.

Lattice degeneration complicated by tractional tears as the result of an acute posterior vitreous detachment represents a high-risk situation for future retinal detachment and is an urgent indication for laser retinopexy. Lattice and atrophic holes complicated by progressively increasing subretinal fluid represents an additional indication for surgical intervention. The presence of lattice lesions in



fellow eyes of patients who have sustained retinal detachment in the first eye may be treated prophylactically. Subsequent retinal detachments may also occur as a result of lesions developing in healthy retina, so the protection is not absolute. If there is cataract, a lens implant, or strong family history of retinal detachment, preventive laser may lessen the chance of retinal detachment. In the absence of the aforementioned features, definitive data do not yet exist to clearly indicate prophylactic laser treatment of lattice lesions.

LATTICE DEGENERATION PROGNOSIS

Patients with significant lattice lesions, and those who have had prophylactic treatments, are always at increased risk over the population at large for vision loss due to retinal detachment.

They must have routine follow-up examinations. Be aware of the signs and symptoms of retinal and vitreous detachment and the necessity to seek urgent ophthalmic care when needed.