Adie's Pupil

Fact sheet

Adie's pupil, sometimes called the Holmes-Adie syndrome, is an unusual neurologic disorder in which the ability of the pupil to constrict is impaired, usually in one eye (although the second eye has a tendency to become involved eventually, usually at a later time, in about 20-30% of cases).

It is generally associated with loss of some reflexes, such as the knee-jerk. It occurs mainly in middle age, and more commonly in women than in men. The cause is unknown, but it is thought to be a form of neuropathy, in which the nerves that control the pupils and the reflexes selectively degenerate.

Some people think this is due to an attack by a virus, other think it is "auto-immune", meaning that the immune system makes antibodies that attack these specific nerves. There is a feeling that light is too bright in the affected eye (because the pupil helps to reduce light intensity by constricting in bright light). T

he pupil also helps to focus light in the eye, and sometimes the nerves that control the lens in the eye may also be involved, so that the vision from the affected eye is often blurry. However, the other eye is usually normal.

Usually over time, the patient adapts to the large pupil (which generally is permanent but non-progressive) and does not notice it anymore. Headache is not a common part of the syndrome, but could be due to problems with your vision.

Wearing sunglasses, or even patching the affected eye, may reduce the strain, and perhaps relieve the headache. Other causes of a tonic pupil include neurosyphillis, diabetes, herpes zoster, giant cell arteritis and alcoholism.