

Scintillating Scotoma (flickering blind spot)

Scintillating scotoma is the most common visual aura associated with migraine. While headache is the most common symptom, visual disturbances and even temporary neurological dysfunction may occur **without** a headache. When the visual aura is followed by a severe, unilateral, throbbing headache with nausea, it's called classic migraine. Without headache, it is called visual or acephalgic migraine.

Although many variations occur (circles, sparks, heat waves) scintillating scotoma usually begins as a spot of flickering light near the center of vision, which is not dark, but blocks vision within the spot. The scotoma then expands into one or more enlarging shimmering arcs or circles of white or colored flashing lights. The arc of light may gradually enlarge and move to **one** side taking a "C" shape of zig-zag lines. Since it is on one side, people mistakenly say it is in one eye, (the eye on that side), but it is almost always on the same side of vision in **both** eyes. It is present when covering either eye and also with the eyes closed, like an after image. It usually lasts from 20-30 minutes, but can last from 5 minutes to an hour. Normal central vision may return several minutes before the jagged line disappears from the peripheral vision. The scotoma typically spontaneously resolves within the stated time frame, leaving few or no subsequent symptoms, though some report fatigue, nausea or dizziness for up to 24 hours.

Since the zig-zag lines are so common, it has been called a fortification spectrum, because of its resemblance to the fortifications or walls of a castle or fort as seen from above. (fig. 1) There are many images which have been created by people who have experienced this phenomenon. (fig. 2)

The visual aura is caused by a disturbance in the visual part of the brain, the occipital cortex, the rear-most part of the brain. While we don't know exactly what causes it, a temporary spasm of the blood vessels, or a local chemical imbalance, it is very common and usually benign. We ask patients to keep a diary to include the length of the episode, which side it is on, and what may have preceded it. (see migraine triggers, fig.3)

Cause for concern is when it occurs after age 50 in someone who has never had it before, has no family or personal history of migraine with "sick headaches"; if it occurs on **one side only**, and is **increasing in frequency**.

fig.1

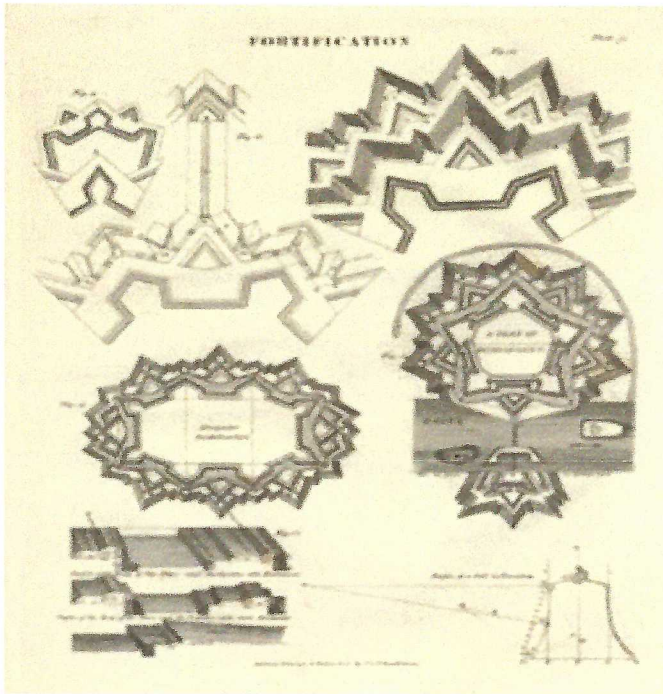
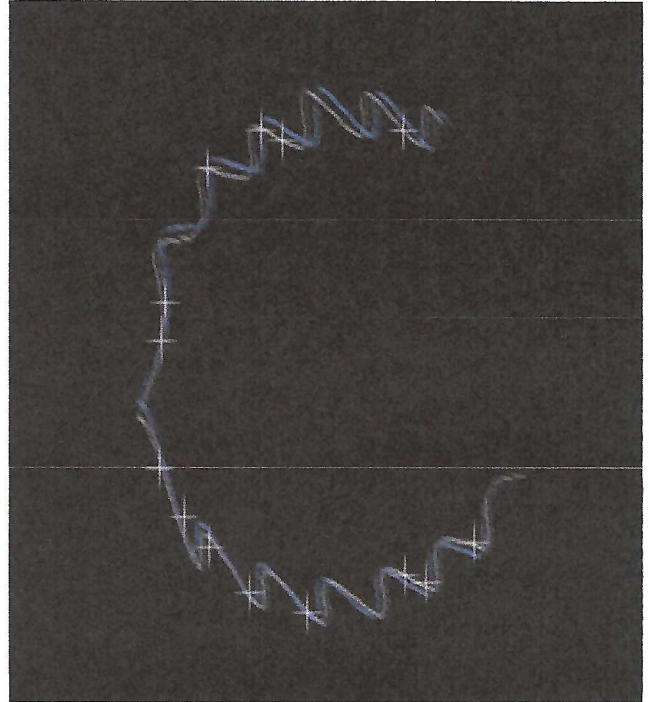


fig.2



<http://www.allaboutvision.com/conditions/ocular-migraine.htm>

http://www.migraine-aura.org/content/e27891/index_en.html (images of auras)

http://www.righthealth.com/topic/Visual_Aura_Migraine (Youtube videos of auras)

(fig.3) **Migraine Triggers**

- Changes in sleeping, eating, or exercise patterns
- During or after emotional stress
- Hormonal fluctuation
 - menarche
 - birth control pills
 - menstrual cycle fluctuation
- Foods or additives
 - MSG
 - tyramine-containing foods (red wine, aged cheese, smoked fish, chicken liver, figs and some beans)
 - nitrate-containing foods (bacon, hot dogs, processed meats)
 - artificial sweeteners
 - chocolate, nuts, peanut butter, avocado, banana, citrus, onions, dairy products, and fermented and pickled foods.
- Bright lights or loud noises
- Certain odors
 - perfumes, cigarette or cigar smoke
- Alcohol
- Caffeine
- Allergic reactions