Eye Implant Can Restore Some Vision in Rare Cases

The Associated Press

Patients who have lost their sight due to a rare disorder may be able to regain some vision using a new implantable device that takes the place of damaged cells inside the eye.

The Food and Drug Administration on Thursday approved the Argus II Retinal Prosthesis System as the first treatment for an inherited disorder that causes the breakdown of cells in the retina, a membrane inside the eye.

FDA says that while the device will not fully restore patients' vision, "it may allow them to detect light and dark in the environment," which could help them perform daily tasks.

The system includes a small video camera and transmitter mounted on a pair of glasses. Images from the camera are processed into electronic data that is wirelessly transmitted to electrodes implanted into the patient's retina.

The FDA approved the device from Second Sight Medical Products for patients 25 years and older who have advanced retinitis pigmentosa. In people with the disease, the light-sensitive cells that line the retina gradually deteriorate, which can eventually lead to blindness.

About 100,000 people in the U.S. have the disease, though the FDA estimates fewer than 4,000 will initially receive the device under its currently approved indication. Besides the age requirement, patients must also have little to no light perception in both eyes but a prior history of being able to make out basic shapes and forms. They must also have signs of at least some remaining retinal function.

"This new surgically implanted assistive device provides an option for patients who have lost their sight to RP - for whom there have been no FDA-approved treatments," said Dr. Jeffrey Shuren, FDA's director for medical devices.

Results from a study of 30 patients showed that most were able to perform daily activities better with the implant than without it. Activities included navigating sidewalks and curbs, matching different color socks and recognizing large words or sentences.

Development of the Argus II was supported by $100 million in grant funding from the National Institutes of Health, the National Science Foundation and the Department of Energy.

Second Sight Medical Products, Inc. is based in Sylmar, Calif.

Source URL (retrieved on *08/03/2015 - 12:39am*):
http://www.mdtmag.com/news/2013/02/eye-implant-can-restore-some-vision-rare-cases