The Comprehensive Epilepsy Program at the American University of Beirut Medical Center (AUBMC) has added new computer-assisted methods in the evaluation and treatment of patients with intractable epilepsy. Depth electrodes for epilepsy were placed, for the first time in the region, with the aid of advanced navigation technology, thus, leading to successful surgical treatment of the recurrent seizures.

Dr. Marwan Najjar, a neurosurgeon and a member of the program, successfully operated on several patients with intractable or drug-resistant epilepsy and recently introduced navigation-assisted placement of depth electrodes meant to evaluate deep-seated areas, previously considered inaccessible.

The technique involves combining the neuronavigation technology, commonly used for removal of brain tumors in delicate locations, with placement of electrodes for epilepsy. Electrodes are commonly placed on the brain surface through small holes and help in the evaluation of the difficult epileptic condition and guide the neurosurgeon towards successful surgery. Several patients have been operated on with excellent results and control of their seizures. In some patients, however, the epileptic focus may be deep in the brain, and depth electrodes are needed. Accurate placement was aided greatly by using the navigation system and combining the two technologies.

The technique is used in few specialized centers in the USA and Europe. Dr. Najjar, who joined AUB and the Comprehensive Epilepsy Program in 2006, has recently introduced the technique at AUBMC, in addition to performing more than 40 successful epilepsy surgeries at AUBMC, working in close cooperation with the medical team in the program. He had trained in surgery for epilepsy and brain tumors in eloquent brain areas at the University of California, Irvine, where he performed many such procedures.

It is not allowed for patients to suffer from recurrent seizures as long as we have means to stop the seizures. In addition to a wide armamentarium of drugs for the treatment of epilepsy, surgery plays a major role, especially in the management of the difficult conditions not responsive to medications, and offers new hope for these patients.

Kindly visit the website of the Division of Neurosurgery at AUBMC using the link http://www.aub.edu.lb/~webneuro/ for more info.