

IMAGING TECHNICAL SUCH AS DTI AND FMRI SHOULD BE EMPLOYED IN THE ROUTINE DIAGNOSIS OF PATIENTS WITH EPILEPSY. NO

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The advanced imaging techniques are indispensable for the advanced diagnostics of epilepsy. Surgical treatment of epilepsy is determined mainly by the detection and location of the seizure onset zone (SOZ; i.e., the brain area that generates epileptic seizures), as well as by the presence or absence of a detectable brain lesion, biological nature of the lesion, relation of the SOZ to the lesion and to the location of the eloquent cortex and, of course, by the decision of the patient. Prior to surgery, all relevant information is evaluated by a multidisciplinary team. The diagnostic process leads to the elimination of some candidates as unsuitable for epileptic surgery, or to the determination of the optimal surgical method for those suitable candidates who are selected to have surgery. Consequently all patients with difficult to treat epilepsy should have been investigated by advanced imaging techniques. The question is what should be obligatory and what facultative in the remaining two thirds of patients with epilepsy. It is evident that in all patients a treatable brain lesion like a tumour should be excluded by relevant means. Advanced techniques such as MRI tractography, spectroscopy and functional MRI, PET and SPECT are not obligatory and necessary in all these epilepsy patients who respond well to pharmacotherapy. Regarding further investigations the answer depends very much on the accessibility and on the reimbursement policy in the health systems in the individual countries. A specific question is the accessibility of the imaging and metabolic investigation techniques in the developing countries.