Epileptic aphasia as a rare stroke mimic presentation

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INTRODUCTION

Stroke is one of the leading cause of disability and death all over the world with a time dependent course and prognosis. Early diagnosis is mandatory for a better treatment and thrombolysis (IVT). Different condition, named Stroke mimics (SM), can simulate an acute focal neurological deficit. SM accounts from 5% to 20% of all acute stroke presentations. Differential diagnosis between them and stroke, when treatment with IVT is considered, can be challenging. Data from literature showed that the potential benefits of IVT outweigh the potential harms: IVT in SM patients is associated with a low risk of rtPA-related bleeding complications. Seizure has been recognized as a leading cause of mimic. However, among epileptic manifestations, adult-onset epilepsy presenting with isolated aphasia is quite rare, while aphasia is more often a stroke presentation.

CASES PRESENTATION AND PERSONAL DATA

In our experience from January 2015 until April 2016, 524 patients were admitted to our Neurology Unit for sudden onset of a stroke, of those patients 34 presented with pure aphasia (fig.1) In all cases Brain-CT Scan and Angio-CT of intra and extracranial vessels were performed and no acute lesions were detected, CT Perfusion was performed only on a small percentage of patients. Of the 34 pure aphasic patients 8 were eligible for IVT treatment. Moreover, during recovery, 6 of the 34 aphasic patients were found to present the neurological deficit due to epileptic status.

In only 3 “mimics” IVT was performed and no bleeding or other adverse events occurred. In the following days EEG (fig.2) was performed showing epileptogenic waveforms in left temporal regions. Antiepileptic therapy was started and patients soon improved. The following Brain-CT-Scan (fig.3) or Brain-MRI did not show any acute focal lesion. These 3 patients were discharged with diagnosis of epileptic seizure.

Fig.1 *Graphic representation of “stroke aphasia” and “epileptic aphasia” in our cohort of patients admitted for a stroke.*

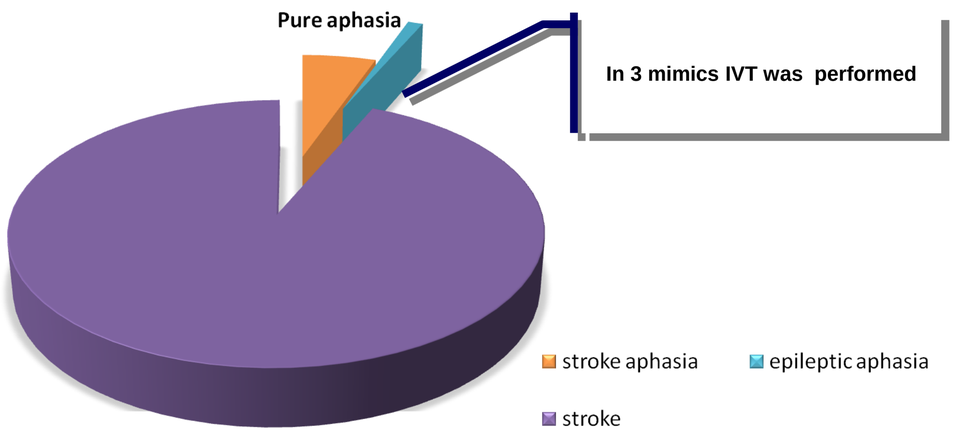


Fig.2 Epileptogenic waveforms in temporal regions

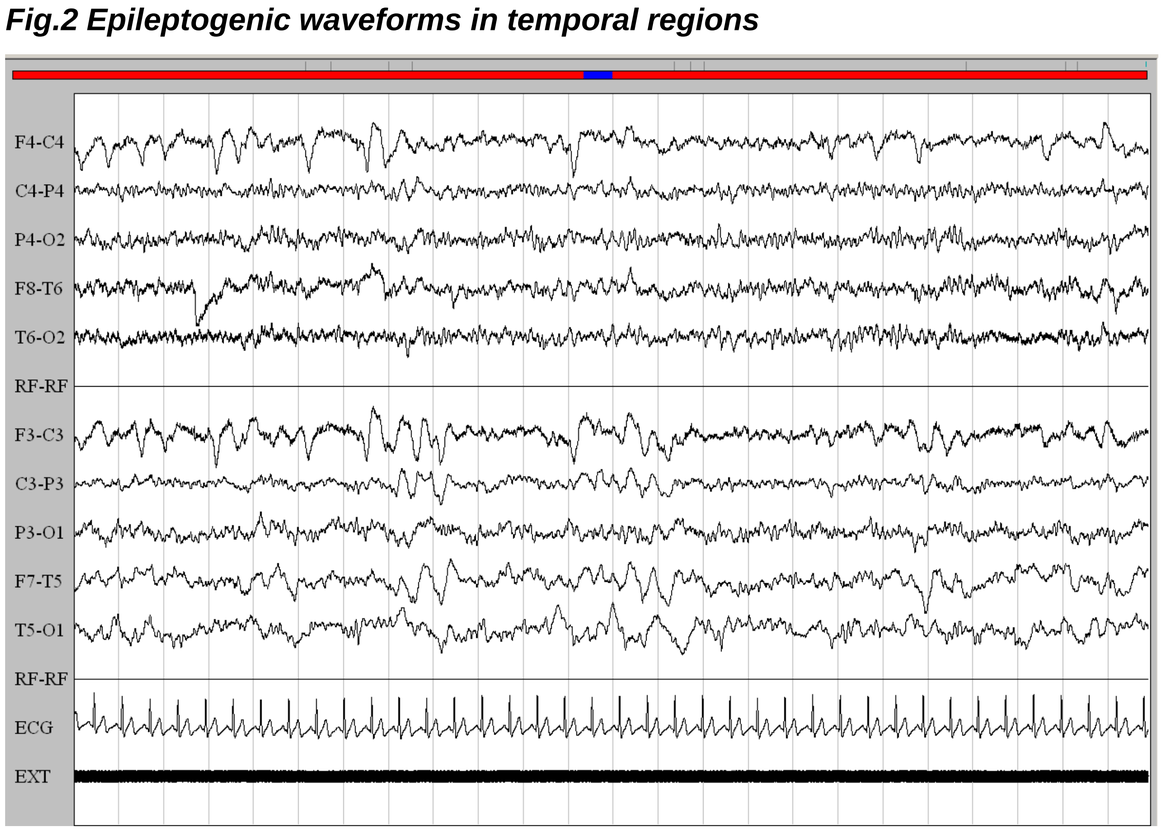


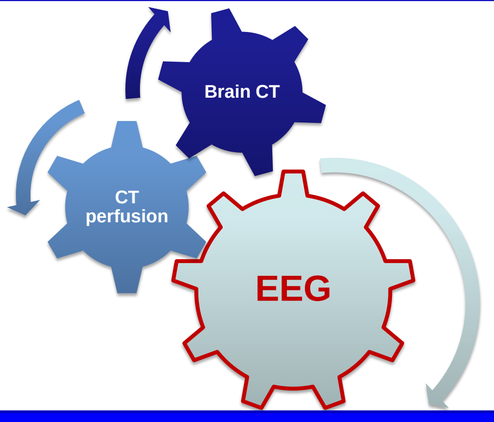
Fig.3 Negative brain CT Scan after 24 h

CONCLUSION AND FUTURE PERSPECTIVES

Pure aphasia due to epileptic status should be considered as well as a stroke presentation in patients with acute language disorder, in particular when all diagnostic and clinical examination don’t suggest to physician an univocal diagnosis.

Our data, in line with previous reports, show that IVT is safe in mimics and that an overtreatment can be justified in these cases by the low risk of IVT-related complications.

A complete diagnostic workup combining EEG performed in the acute phase, Brain-CT-Scan, Angio-CT and CT-perfusion could be useful to reach a better diagnostic accuracy and an appropriate treatment.



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