DIFFERENTIAL DIAGNOSIS OF EPILEPTIC SEIZURES AND PARASOMNIA IN PATIENTS WITH VERIFIED EPILEPSY WITH NOCTURNAL PAROXYSMAL EVENTS ON THE ANALYSIS OF 2 CLINICAL CASES.

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Differential diagnosis of epilepsy and sleep disorders begins with the appearance of ictal events during sleep. If there is no clear evidences that the patient had a tonic-clonic seizure that can only be diagnosed as epileptic seizure, it must be confirmed that the sleep paroxysmal event is an epileptic seizure. To adequately address this issue, it is necessary to remember that paroxysmal motor sleep phenomena may be non-epileptic one.

After the diagnosis of epilepsy, the differential diagnosis of paroxysmal events observed in patients usually stops.

Epilepsy can increase the risk of developing parasomnia which are not epileptic seizures, but have a clear interaction with epilepsy

On the example of 2 patients with verified epilepsy, we want to show the need to continue the differential diagnosis of nocturnal paroxysmal events after the diagnosis of epilepsy.

Both patients gave consent to the depersonalized presentation of their clinical data, but were not allowed to use video recordings

Patient Z. 28 years old, the diagnosis of epilepsy from 14 years old – cryptogenic epilepsy with complex partial and secondary generalized seizures. MRI-without pathology (figure 1). Using AED led to a significant reduction numbers of seizures. At the age of 22, paroxysmal events appeared during sleeping in the form of jumping up, aggressive behavior, duration up to 20 minutes. The dose of AED was increased; the second AED was added. (Levetiracetam was increase from 1000mg till 1500mg per day, Oxcarbazepine was added and titrated till 1200 mg per day). Day seizures stopped, the night events remained unchanged. During the polysomnography during the registration of the paroxysmal event described above, multiple motor artifacts were determined that did not allow to verify the state of bioelectric activity of the brain. Short episodes of tonic tension of mimic muscles and muscles of trunk duration up to 1 minute were also registered, they had no muscle artifacts and were not accompanied by epileptic activity on EEG. (Figure 2). In interictal EEG – sharp wave complexes were observed in the right central and frontal leads (Figure 3). Drugs which influences to the sleep was prescribed – zopiclon, melatonin, quetiapine. Night jumps with aggressive behavior stopped, occasionally there is a restless sleep with tonic muscle contractions

Patient S. 36 years old, has symptomatic epilepsy caused by left-sided hippocampal sclerosis with complex partial and secondary generalized seizures from 23 years (Figure 4). Therapy AED (Leviteracetam 1000 mg/day, Valproate 600 mg/day) – seizure control. In 33 years appeared sleep paroxysmal events with spillage, sleepwalk with aggressive behavior, duration 5 – 7 minutes. The clinical picture was very similar to patient`s Z. Polysomnography during paroxysmal event, multiple motor artifacts were determined, but at the beginning of the paroxysmal event, data were obtained that could be regarded as epileptic activity in the left frontal-central-temporal region. In the interictal EEG – Epileptiform activity in the left temporal lead with lateralization of activity in the left leads during the 2nd phase of sleep (figure 5). Prescription of sleep agents was not effective for night paroxysms events. Increasing doses of AEDs (Levetiracetam from 1000 to 1500 mg/day, Valproate from 600 to 1200 mg/day) resulted to discontinuation night events.

In epilepsy patients with the appearance of night paroxysms, it is necessary to continue the differential diagnosis of parasomnia and epileptic seizures even in patients with verified epilepsy. The development of parasomnia in such patients often leads to diagnostic and therapeutic deficiencies. (Figure 6) The figure shows management tactic for such patients shortly.

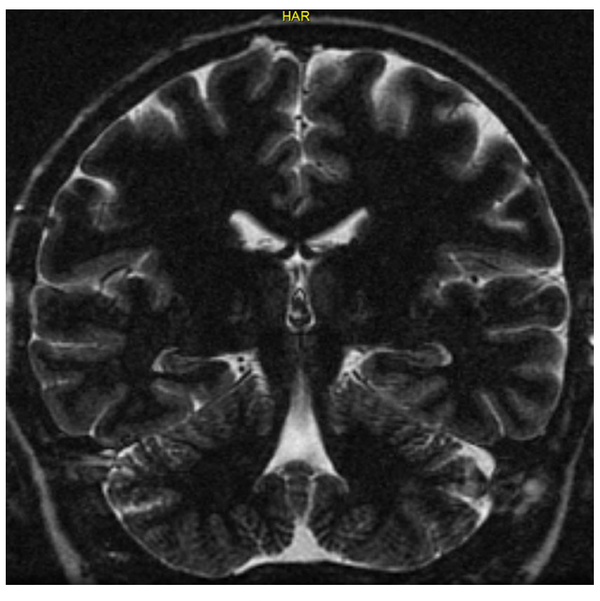

Figure 1

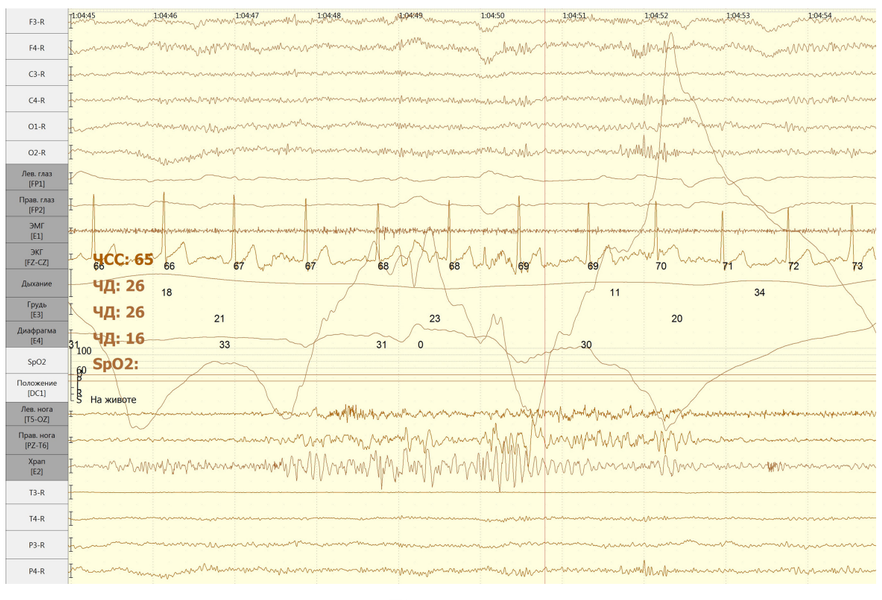

Figure 2

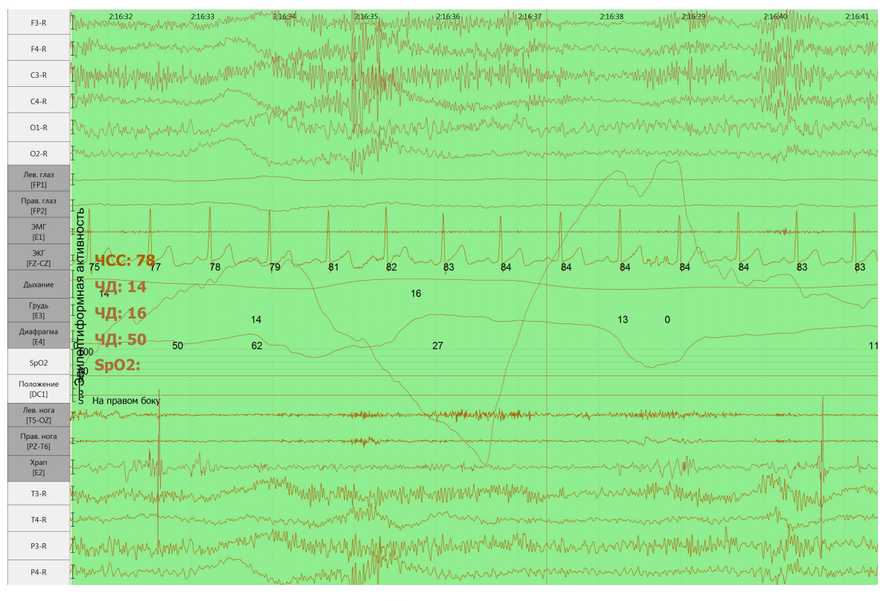

Figure 3

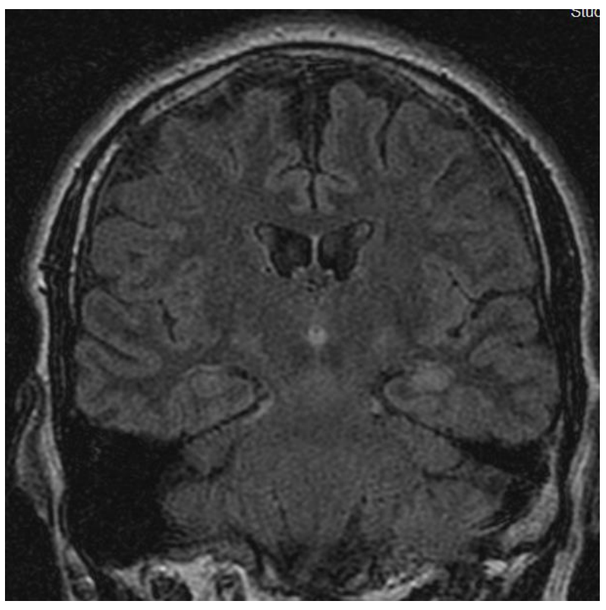

Figure 4

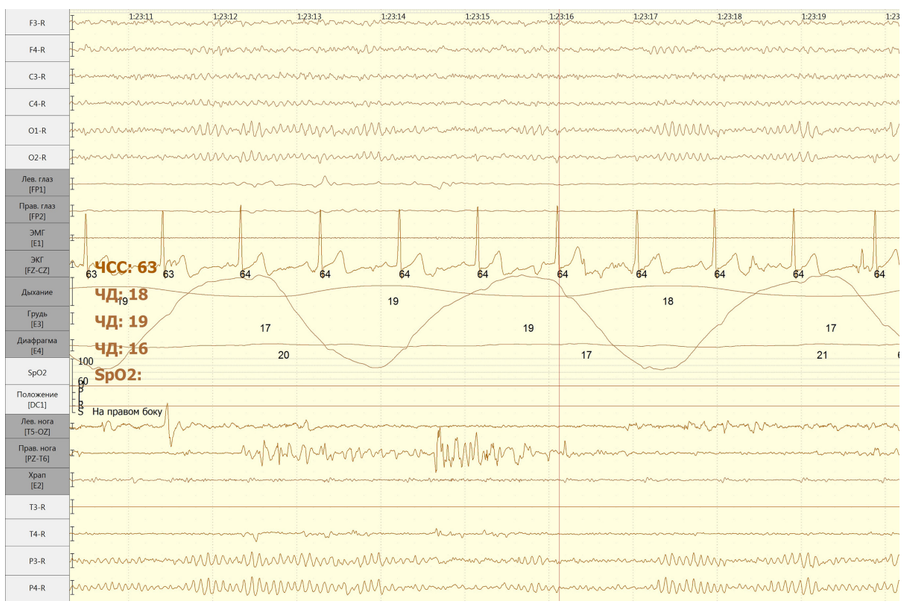

Figure 5

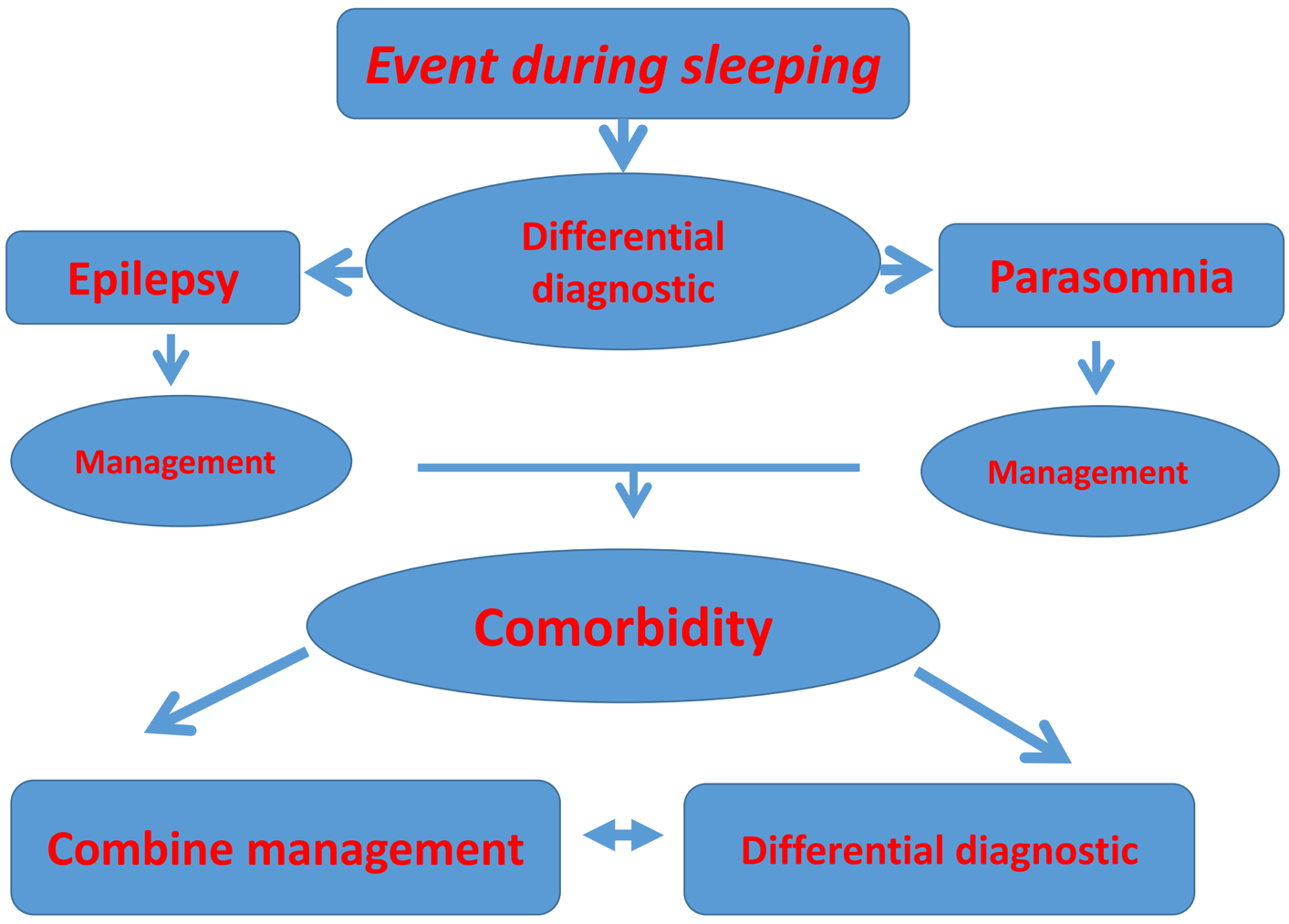

Figure 6