

Risperidone and Carbamazepine Combination in Treatment of Klüver-Bucy Syndrome: A Case Report

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Abstract: Klüver-Bucy (KBS) syndrome is a rare neurobehavioral disorder, characterized by hypersexuality, hyperphagia, hyper-orality, visual agnosia and placidity. Here I present a case of A-21-year-old Saudi female with a Klüver-Bucy syndrome secondary to left unilateral parieto-temporal tumor resection who responded to a combination of carbamazepine and risperidone.

Keywords: Klüver-Bucy syndrome; temporal lobe; carbamazepine; risperidone.

1. INTRODUCTION

Klüver-Bucy (KBS) syndrome is a rare neurobehavioral disorder, characterized by hypersexuality, hyperphagia, hyper-orality, visual agnosia and placidity. KBS is usually resulting from bilateral damage of the anterior portion of a temporal lobe, especially the amygdala. The damage to amygdala can be due to multiple etiologies, including traumatic brain injury, degenerative brain diseases, tumors, anoxia-ischemic encephalopathy, hypoglycemia, heat stroke, acute intermittent porphyria and infections such as tuberculosis or herpes simplex encephalitis.[1],[2],[3]

Klüver H and Paul Bucy noted a change in monkey's behavior after temporal lobectomy at the end of the 1930s.[4] Klüver-Bucy syndrome classified according to ICD-10 (International Classification of Diseases 10th Revision) as a personality change due to known physiological condition. Here I report a case of Klüver-Bucy syndrome secondary to left unilateral parieto-temporal tumor resection.

2. CASE REPORT

A -21-year-old Saudi female underwent surgical resection of a well-defined tumor in the left parieto-temporal region at 2014, complicated by permanent bilateral blindness. She was stable until July/2017 when she admitted to a medical ward as she was complaining of Seizure, headache, and visual hallucination. The patient discharged one month later with a stable condition on the following medications: Topiramate 75 mg BID, Oxcarbazepine 300 mg BID, Levetiracetam 250 mg BID, Escitalopram 10 mg OD, Risperidone 4mg OD.

The patient presented to the clinic on January/2018 and was complaining of: Increased oral intake, increased weight (gained 30 KG over the past 6 months), hyper-orality (tendency to touch objects by mouth), hypersexuality (sexual instincts in the form of stroking sex organs), aggression (verbal aggression by using inappropriate words toward her family associated with physical aggression), poor sleep, and psychotic symptoms (auditory and visual hallucination, with delusion of get pregnant from them).

No depressive or manic symptoms. Denied a history of smoking or other substance use. The patient known case of hypothyroidism on levothyroxine 100 mcg OD {T4: 11.4 (12.0 - 22.0) PMOL/L, TSH: 4.270 (0.270 – 4.200) UIU/ML}. No history of neurological or mental illness in the family. The patient has a healthy identical twin.

The patient was given carbamazepine 200mg BD, and risperidone increased to 6 mg OD. Her symptoms including psychotic features, hyper-orality and hypersexuality were decreased. The patient discharged after 4. weeks.

3. DISCUSSION

Human cases of Klüver-Bucy syndrome were recognized in the 1950s, as surgeons employed bilateral temporal lobectomies to treat seizures. Though the anatomical basis of KBS is controversial, the most common involved region is the bilateral mesial temporal lobes. [5],[6],[7] Klüver-Bucy syndrome also results from the disruption of the circuits between prefrontal cortex and limbic system which are important in memory emotions regulation. [8],[9],[10]

Inappropriate sexual hyperactivity was the most common KBS symptom, followed by a change in dietary behavior and hyper-orality. Visual agnosia was the least reported. In 50% of cases, the patient fully recovered from KBS. Libido frequently increases in patients who have unilateral temporal lobe resection and may become pathological.[11]

No specific medication for treatment of Klüver-Bucy syndrome. Carbamazepine, leuprolide, antipsychotics like risperidone and antidepressants like selective serotonin reuptake inhibitors have been found to decrease the behavioral symptoms in some patients with KBS. [12],[13],[14]

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