



Kissing Lesion: Atypical Cortical Involvement in a Patient With Relapsing-Remitting Multiple Sclerosis: Clinical Image



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Introduction

Multiple Sclerosis (MS) can affect different areas of the central nervous system. One of the areas that has been recently highlighted, and also been included in MS diagnostic criteria is the cortex area [1].

Although cortical lesions are less inflammatory compared to white matter lesions, this inflammation can affect the surrounding meninges in addition to the adjacent tissues [2]. Traditionally, cortical lesions are divided into three groups as follows: in the first group,

apart from the cortex, the subcortical tissue is also involved; in the second group, the lesion is merely within the cortex and involves all layers; and in the third group, the lesion extends from the pial surface to the adjacent cortex [3].

The inflammation of the meninges in a cerebral gyrus can cause inflammation in the lateral meninges, and consequently the inflammation of the lateral cortical tissue. This lesion, which has been recently reported in a paper, is known as the kissing lesion [4]. Here, an MS case reported having the mentioned feature in the Magnetic Resonance Imaging (MRI).

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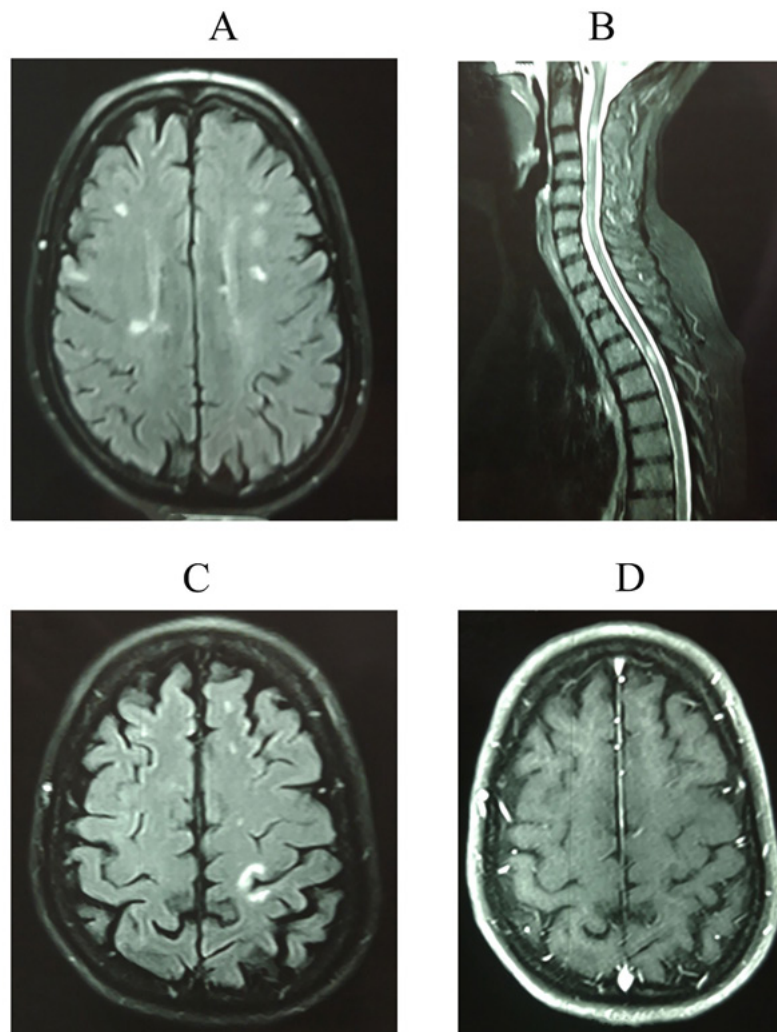


Figure 1. Brain and cervical MRI



A: Brain MRI revealing multiple periventricular lesions; B: Cervical MRI showing demyelinating plaque; C: Kissing lesion was drawn along with both sides of the central sulcus; D: No enhancement in the lesion

Case Summary

The patient is a 51-year-old woman. The patient's problems have been started three years ago with paresthesia in the left side of the body. This paresthesia lasted for three days and then improved without referring to a doctor. The patient had no other problem until October 2019 when she indicated right-hand numbness. This numbness also improved spontaneously within 4 weeks. The patient was then referred to the MS clinic for further examinations. She had no complaints at the admission time, and her systemic and neurologic examinations indicated normal conditions. The patient's family history of autoimmune diseases was negative, but she has had a history of hypertension for 5 years, and since then, she was taking amlodipine once a day.

MRI has been done for her and multiple periventricular lesions were evident in the brain MRI (Figure 1A). A demyelinating plaque was also observed in cervical MRI (Figure 1B). Accordingly, one of these brain lesions had the appearance of a kissing lesion. The lesion was drawn along with both sides of the central sulcus (Figure 1C). However, it has not enhanced in appearance after injection (Figure 1D). Routine tests and vasculitis testing were negative. Therefore, the patient was diagnosed with MS and she began receiving glatiramer acetate. Unfortunately, no further radiologic examinations such as 7-Tesla MRI, which better shows cortical lesions, were possible.

Identifying cortical lesions is very important since these lesions are not only used in diagnostic criteria for MS but are also directly correlated with the cognitive

and physical disability in patients with MS [5]. Therefore, the presence of such lesions may help the physicians to make better decisions for the treatment of MS.

Ethical Considerations

Compliance with ethical guidelines

All ethical principles are considered in this article. The participants were informed about the purpose of the research and its implementation stages; they were also assured about the confidentiality of their information; moreover, they were free to leave the study whenever they wished, and if desired, the research results would be available to them.

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Conflict of interest

The authors declared no conflict of interest.

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