

About the Need to Review the Fredericks and Bruyn Criteria for Mollaret's Meningitis Diagnosis

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Editorial

Mollaret's meningitis is a rare disease characterized by recurrent self-limiting episodes of lymphocytic meningitis, mainly linked to viral infections (Herpes Simplex Virus and Epstein Barr Virus), and to a lesser extent to autoimmune diseases, alternating with periods in which the patient is asymptomatic.

The first who described the Benign Recurrent Meningitis Syndrome was Melendro Calvo in 1943. In 1944, Mollaret [1] described a Recurrent Meningitis Syndrome, which was observed in three patients during a period of 15 years. However, it was not until 1961 that Fredericks and Bruyn reviewed all cases so far published, and established diagnostic criteria that characterize this syndrome:

1. Recurrent attacks of fever associated with symptoms and signs of meningeal irritation;
2. Attacks that last several days, may be accompanied by generalized myalgia, and are separated by asymptomatic periods lasting weeks or months;
3. During attacks, there is a pleocytosis in the cerebrospinal fluid including endothelial cells, leukocytes and lymphocytes. These cells, although not pathognomonic are highly suggestive of this type of meningitis
4. The disease is followed by complete resolution and leaves no residual changes.

In 1962, Bruyn et al. [2] review the cases published up to that time, and drew attention to the fact that this entity has not been described in American literature. In 1976, the first three cases are described in United States. In 1991, Yamamoto et al. [3] reported the first case of Mollaret's meningitis with confirmation of HSV type 1 DNA by polymerase chain reaction (PCR) and since then, DNA was detected mainly of HSV type 2 in 85% of cases.

The pathogenesis of this syndrome is not yet fully understood but it is believed that the HSV (type 1 or type 2) reaches the central nervous system from the site of primary infection, which has lain dormant.

In examining the CSF of these patients, within 12 - 24 Hours pleocytosis exists several thousand cells per cubic millimeter; the

beginning is typical predominantly polymorphonuclear and endothelial cells are observed, call Mollaret's cells, which are characterized by very quickly undergo lysis, even as they are observed under the microscope, that's why they are called "ghost cells." Usually cannot be detected after 24 hours into the meningeal box. Since Mollaret's cells are present only in the first 24 hours, when other causes have been excluded (infectious or not) should be performed rt-PCR in CSF to identify the causative viral agent.

Therefore, we need to redefine the criteria de Bruyn and Fredericks criteria for Mollaret's meningitis diagnosis, and consider the chain reaction polymerase in real time (RT-PCR) as the gold standard in a case of recurrent encephalitis with asymptomatic periods, because, by its low incidence, it will be very difficult to make larger population studies of this disease [4-8].

References

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