HEMATOLOGY, TRANSFUSION AND CELL THERAPY

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ABSTRACTS FLOW CYTOMETRTY

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IMPORTANCE OF FLOW CYTOMETRY IN THE RELATIONSHIP OF TOLOSA HUNT SYNDROME WITH LYMPHOMA: DIRECT CAUSE OR INDICATOR OF POOR PROGNOSIS?

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Introduction: Hunt Syndrome (THS) is a rare pathology, defined as an idiopathic granulomatous inflammation of the cavernous sinus or the superior orbital fissure, which could act as a favorable microenvironment for lymphoproliferative development or, in patients with lymphoma, the involvement of the cavernous sinus could represent an early manifestation of aggressive systemic disease. Flow cytometry (FCM) emerges as a key tool for its study. **Clinical case presentation:** A 41-year-old male patient with a history of high blood pressure and no toxic habits consulted the ophthalmology department for unilateral painful ophthalmoplegia. On 8/28/2023, he was diagnosed with STH. On 10/18/2023, he was readmitted to the hospital to the Neurology department due to a worsening of the initial clinical presentation, with the addition of pain in the lower limbs for more than two weeks and facial paresis with sensory disorders. **Diagnostic Studies:** - Routine laboratory and immunological tests: no particularities; - Serological and virological studies: Negative; - Imaging study: CT scan of the head: no lesions. NMR: increased size of the previous right sellar-parasellar lesion with total occupation of the homolateral cavernous sinus; - CSF studies: Cytophysicochemical (CFQ): cell count 1000/mm^3 with mononuclear predominance. Bacteriological and VDRL: negative. -Cytological: positive for neoplastic cells with poor differentiation. Differential diagnosis with lymphoid origin. 07/11/2023: Consultation with Hematology, performance of CMF and Cytomorphology in CSF and bone marrow aspiration (BM). FCM in CSF: 97% of medium-sized cells with medium/low internal complexity, expressing: CD 45+, CD19++, heterogeneous CD 20++, CD79b+/-, co-expressing: CD10+, CD38++, CD81++. Negative for: CD5, CD11c, CD103, CD95, CD200, CD43 and CD25. Clonal Lambda. FCM in MO: no evidence of infiltration due to a lymphoproliferative process. Cytomorphology: BM: hypercellular, polymorphic, megakaryocytes present. CSF: medium to large lymphocytes, round nucleus, fine chromatin and prominent nucleolus, basophilic cytoplasm with vacuoles, “starry sky” pattern. **Discussion:** Usually, STH presents with normal CSF CFQ, unlike this patient with an elevated mononuclear leukocyte count and negative bacteriology. Although the CSF pathology report was indicative but not conclusive, FCM turned out to be a high-impact test in diagnostic accuracy, allowing to demonstrate CNS involvement due to a lymphoproliferative process, clonal Lambda CD10+ CD95- B-NHL, concordant with Cytomorphology . It is worth mentioning that the FCM study was requested late due to the delay in the hematology consultation, which negatively influenced the diagnosis, prognosis and treatment of the patient, who died on 11/19/2023. Postmortem frozen biopsy B-NHL lymphoma (Burkitt). **Conclusion:** The association between STH and Lymphoma should be considered in cases of atypical presentation or suboptimal response to conventional treatment. FCM is a fundamental tool for early diagnosis due to its high sensitivity and diagnostic accuracy in CSF samples, allowing for the establishment of an effective treatment that changes the patient’s prognosis. Although the results were consistent with the biopsy, the latter required a more representative sample for the diagnosis, which was obtained post-mortem.

https://doi.org/10.1016/j.htct.2025.103992

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CASE REPORT: LARGE GRANULAR T-CELL LYMPHOMA/ LEUKEMIA WITH THE PRESENCE OF TWO CLONES

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