Fine-needle aspiration cytology of metastatic oligodendroglioma: case report and literature review.

Can B, Akpolat I, Meydan D, Üner A, Kandemir B, Söylemezoğlu F.

Department of Pathology, Faculty of Medicine, Ondokuz Mayis University, Samsun, Turkey. canbilge@yahoo.com

Abstract

BACKGROUND: Systemic metastasis of a glial tumor is a rare event. However, metastatic cases are anticipated to increase due to prolongation of survival as a result of the development of new treatment modalities. The possibility of metastasis should be considered in patients with a history of a glial tumor rather than a second primary tumor. Fine-needle aspiration cytology is one of the diagnostic procedures primarily applied for confirmation of metastasis in cases with a known primary focus. Therefore, comprehensive knowledge of diagnostic cytomorphologic findings is required in these cases.

CASE REPORT: We report a young woman with oligodendroglioma metastasizing to the cervical lymphatic chain 5 years after initial diagnosis. Fine-needle aspiration cytology revealed a highly cellular smear with dispersed single cells and loosely cohesive cell clusters showing rosette-like features on a clean background. The relatively monotonous tumor cells were small sized and had round nuclei with moderate anisonucleosis and scant cytoplasm without extensions. Diagnostic confirmation was made by excisional biopsy and demonstration of 1p19q codeletion on tissue section by fluorescence in situ hybridization.

CONCLUSION: A brief review of the literature with an emphasis on the cytologic features of metastatic oligodendroglioma and differential diagnosis with respect to other metastatic small round cell tumors is provided.

Copyright © 2012 S. Karger AG, Basel.

PMID: 22236753 [PubMed - indexed for MEDLINE]