Wydawnictwo UR 2021
ISSN 2544-1361 (online); ISSN 2544-2406
doi: 10.15584/ejcem.2021.1.12

http://www.ejcem.ur.edu.pl
European Journal of Clinical and Experimental Medicine
Eur J Clin Exp Med 2020; 19 (1): 86–88

CASUISTIC PAPER

Piotr Przyczyna [1,2(ABCGF)], Elżbieta Trojnar [1(ABCGF)], Dorota Bartusik-Aebisher [3(DFG)], David Aebisher [4(DFG)]

Metastasis of cancer from Merkel cells to the thyroid gland

[1] Clinical Provincial Hospital No. 2 St. Jadwiga Krolowej in Rzeszow, Rzeszow, Poland
[2] Department of Morphological Sciences, Institute of Medical Sciences, Medical College of Rzeszow University, Rzeszow, Poland
[3] Department of Biochemistry and General Chemistry, Institute of Medical Sciences, Medical College of Rzeszow University, Rzeszow, Poland
[4] Department of Photomedicine and Physical Chemistry, Institute of Medical Sciences, Medical College of Rzeszow University, Rzeszow, Poland

ABSTRACT

Introduction. Merkel cell carcinoma (MCC) is a rare and aggressive neuroendocrine skin cancer.

Aim. Herein described is a case of hypertensive patient, after removal of Merkel cancer of the left gluteus skin (2011), after pulmonary embolism (2013), with degenerative changes of the spine and uterine myoma, chronically treated with Warfarin, because of suspected thyroid cancer.

Description of the case. A 70-year-old woman case after removing Merkel cancer of the left buttock skin (2011), after pulmonary embolism (2013), with degenerative changes of the spine and uterine fibroids treated chronically with Warfarin because of suspected thyroid cancer is described.

Conclusion. Increasing evidence of Merkel cell carcinoma with immunodeficiency and neoplasia, and the management and outcome of these patients requires study.

Keywords. Merkel cells, metastasis of cancer, thyroid gland

Introduction

Merkel cell carcinoma (MCC) is a rare skin cancer that mainly affects older people (median age is 69 years), white skin with light complexion. This tumor tends to resume locally and metastasize to regional lymph nodes.[1,2] The most common is formed in the dermis and infiltrates subcutaneous tissue. The diagnosis of MCC by means of light microscopy is difficult, therefore pathologists support immunohistochemistry and electron microscopy.[3] In the United States, about 1,500 cases are diagnosed. Due to the rarity of this cancer, we do not have fixed schedules. Although several studies conducted since 2000 have used population-based data sources to investigate the epidemiology of MCC, many studies lacked diagnostic and therapeutic data, and therefore the impact on the relapse and survival of

Corresponding author: Piotr Przyczyna, e-mail: piotrprzyczyna@gmail.com

Participation of co-authors: A – Author of the concept and objectives of paper; B – collection of data; C – implementation of research; D – elaborate, analysis and interpretation of data; E – statistical analysis; F – preparation of a manuscript; G – working out the literature; H – obtaining funds

Received: 10.09.2020 | Accepted: 24.11.2020
Publication date: March 2020

Przyczyna P, Trojnar E, Bartusik-Aebisher D, Aebisher D. *Metastasis of cancer from Merkel cells to the thyroid gland.* Eur J Clin Exp Med. 2021;19(1):86–88. doi: 10.15584/ejcem.2021.1.12

MCC could not be investigated to help improve treatment of the disease.[5-8]

Aim

The aim of this work was histopatological study of Merkel cancer cells. We describe a case an 70-year-old woman with hypertension and degenerative changes of the spine and uterine fibroids.

Description of the case

A 70-year-old woman with hypertension admitted to the Department of Internal Diseases was admitted after removing Merkel cancer of the left buttock skin (2011), after pulmonary embolism (2013), with degenerative changes of the spine and uterine fibroids treated chronically with Warfarin because of suspected thyroid cancer. In thyroid biopsy, atypical, probably cancer cells have been described. In the laryngological consultation it was found that there was no mobility of the right half of the larynx. In the CT scan of the neck and chest, in the right thyroid lobe there was a change in TU, modeling neck organs. The change went down behind the sternum, reaching the level of the aortic arch, surrounding the brachiocephalic trunk and its branches, with the narrowing of the right cervical lumen to min. 6 mm; the inner and outer jugular veins on the right side were not contrasted. In abdominal CT, bilateral adrenocortical tumors with high durability were found bilaterally. Due to the necessity of thyroid surgery, the patient was prepared for annihilation urgently and transferred to the Department of Surgery. Operational failure was found to be inoperable. Samples were removed and tracheostomy performed. On the second day after the procedure, the patient was operated on due to dyspnea. Due to the result of histopathological examination – metastasis of cancer from Merkel's cells, the patient was consulted with the Department of Soft Tissue Cancer, Bone and Melanoma in Warsaw. After the oncological consultation, the patient was disqualified from chemo/radiotherapy treatment due to poor general condition. After disqualification, the patient was transferred to the Palliative Department.

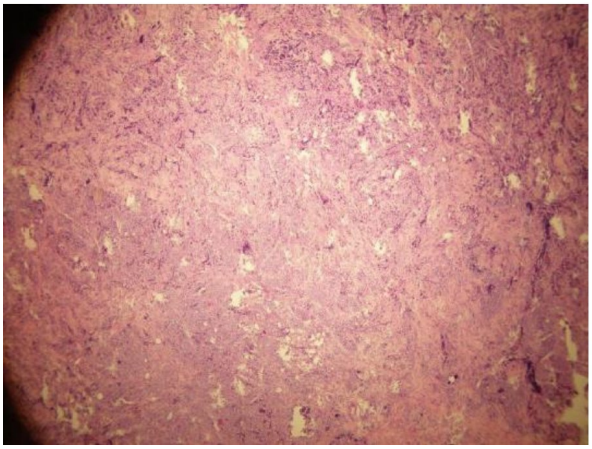

Fig. 1. Infiltrate of signaling cells in metastasis of cancer from Merkel's cells (H&E, 40x)

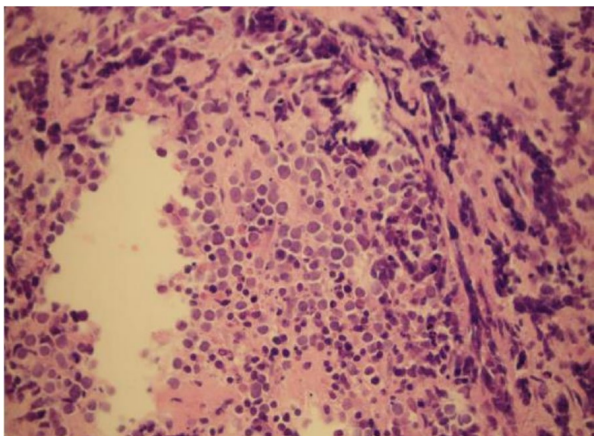

Fig. 2. Infiltrate of signaling cells in metastasis of cancer from Merkel's cells (H&E, 400x)

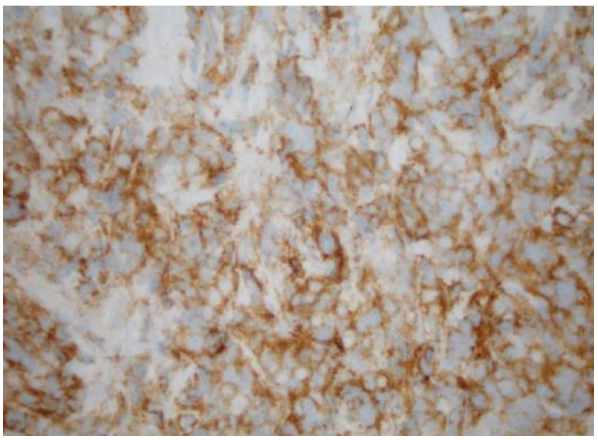

Fig. 3. Infiltrate of signaling cells in metastasis of cancer from Merkel's cells, D56 (40x)

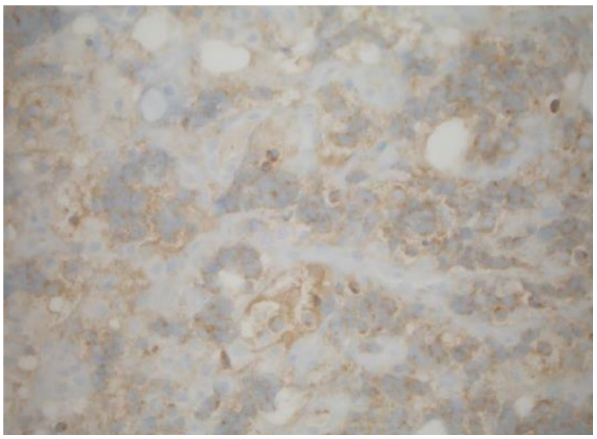

Fig. 4. Infiltrate of signaling cells in metastasis of cancer from Merkel's cells, Synaptophysi (40x)

Despite the fact that the cancer of Merkel cells is a rare cancer, it is an important problem because we do

not really know how to deal with patients. It is a challenge not only for clinicians who have problems with establishing chemo-and radiotherapy, and for histopathologists because of its similarity to other cancers (Figures 1-5).

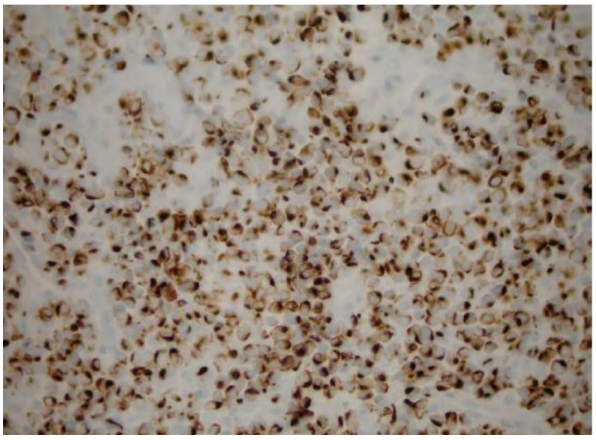

Fig. 5. Infiltrate of signaling cells in metastasis of cancer from Merkel's cells, CK-20 (40x)

Discussion

Recently, there have been studies stating that patients with an unknown primary site have a better prognosis, both relapse and survival.[9,10] MCC rarely affects the thyroid, so far there are only three such cases in the literature.[11] Differential diagnosis covers a wide spectrum of changes. From cancers originally originating from the skin - basal cell carcinoma, generalized diseases - lymphomas, metastases from other organs - small cell lung carcinoma. MCC rarely affects the thyroid, so far there are only three such cases in the literature.[11] Differential diagnosis covers a wide spectrum of changes. From primary cancers - basal cell carcinoma, generalized diseases - lymphomas, metastases from other organs - small cell lung cancer.

Conclusion

The prognosis in this cancer is poor, with a high mortality rate in the case of distant metastases. Metastasis to the thyroid gland is very rare and may present diagnostic difficulties.

References

1. Swann MH, Yoon J. Merkel cell carcinoma: clinicopathological aspects of an unusual neoplasm. *Semin Oncol.* 2007;34(1):51-56.
2. Heath M, Jaimes N, Lemos B, et al. Clinical characteristics of Merkel cell carcinoma at diagnosis in 195 patients: the AEIOU features. *J Am Acad Dermatol*. 2008;58(3):375-381.
3. Liapakis IE, Korkolis DP, Koutsoumbi A, Kokkalis G, Gherardini G, Vassilopoulos PP. Merkel cell carcinoma: clinicopathological aspects of an unusual neoplasm. *J BUON*. 2007;12(2):173-179.
4. Lemos B, Nghiem P. Merkel cell carcinoma: more deaths but still no pathway to blame. *J Invest Dermatol.* 2007;127(9):2100-2103.
5. Albores-Saavedra J, Batich K, Chable-Montero F, Sagy N, Schwartz AM, Henson DE. Merkel cell carcinoma demographics, morphology, and survival based on 3870 cases: a population based study. *J Cutan Pathol*. 2010;37(1):20-27.
6. Girschik J, Thorn K, Beer TW, Heenan PJ, Fritschi L. Merkel cell carcinoma in Western Australia: a population-based study of incidence and survival. *Br J Dermatol.* 2011;165(5):1051-1057.
7. Reichgelt BA, Visser O. Epidemiology and survival of Merkel cell carcinoma in the Netherlands: a population-based study of 808 cases in 1993-2007. *Eur J Cancer*. 2011;47(4):579-585.
8. Asgari MM, Sokil MM, Warton EM, Iyer, J, Paulson KG, Nghiem P. Effect of Host, Tumor, Diagnostic, and Treatment Variables on Outcomes in a Large Cohort With Merkel Cell Carcinoma. *JAMA Dermatology.* 2014;150(7):716.
9. Tarantola TI, Vallow LA, Halyard MY, et al. Unknown primary Merkel cell carcinoma: 23 new cases and a review. *J Am Acad Dermatol*. 2013;68(3):433-440.
10. Foote M, Veness M, Zarate D, Poulsen M. Merkel cell carcinoma: the prognostic implications of an occult primary in stage IIIB (nodal) disease. *J Am Acad Dermatol*. 2012;67(3):395-399.
11. Vaiciunaite D, Beddell G, Ivanov N. Merkel cell carcinoma: an aggressive cutaneous carcinoma with rare metastasis to the thyroid gland. *BMJ Case Rep*. 2019;12(4):e228273.