

Dermoscopy of cutaneous metastases from primary hepatocellular carcinoma

Xiao-Yang Liu, Jiang Jin, Si Zhang, Heng Zhang, Yan Zhao, Lin Cai, Jian-Zhong Zhang

Department of Dermatology, Peking University People's Hospital, Beijing 100044, China.

To the Editor: A 62-year-old man came to our department and complained with progressively enlarging and bleeding multiple reddish nodules on his face for 20 days. The patient had a previous history of hepatitis B without any treatment for 20 years. Three months ago, he was diagnosed as hepatocellular carcinoma (HCC) and multiple metastases (including lung and inferior vena cava). Then, he was treated with transcatheter arterial chemoembolization and antiviral drugs. The physical examination showed six reddish, firm, and nodules with diameters of 1 to 10 mm on his face. Some lesions accompanied with capillaries dilatation, rupture, and bleeding [Figure 1A and 1B]. Dermoscopic examination revealed homogenous, blurry milky-red area, multiple serpentine and arborizing vessels, and some irregular red lacunas over a milky-red areas [Figure 1C]. The skin biopsy from a bleeding nodule revealed a large number of mass tumor cells in dermis. The tumors were composed of pleomorphic cells with increased mitosis, and inter-cellular bleeding was noted [Figure 1D]. Furthermore, cutaneous metastases from HCC was confirmed by immunohistochemical staining [Figure 1E and 1F], which showed hepatocyte (+), arginase-1 (+), cytokeratin (+), Ki-67 (30%+), cytokeratin 19 (-), α -fetoprotein (-), carcinoembryonic antigen (-), and epithelial membrane antigen (-).

Cutaneous metastases from HCC are relatively rare, accounting for only 0.2% to 2.7% of all cutaneous metastases.^[1] The majority of cutaneous metastases from HCC originate from needle tracks or surgical wound contamination; non-iatrogenic metastasis was rare. One possible explanation is that HCC invades the systemic circulation less frequently than it invades the portal veins.^[2]

Cutaneous metastasis from HCC can be everywhere. Its clinical manifestations are diverse, presenting with asymptomatic or painful reddish-blue nodules, size varied, firm on palpation, ulceration or non-ulceration, and rapid growth.^[1,2] Histopathology and immunohistochemical

staining have great value to diagnosis cutaneous metastasis. Cong *et al*^[3] suggested that the first line of immunohistochemical antibodies of HCC were HepPar-1 and CD34, and the second line was polyclonal carcinoembryonic antigen and α -fetoprotein.

Dermoscopy can facilitate the early diagnosis as a reliable non-invasive method. Karen *et al*^[4] found the most common dermoscopic manifestations from non-pigmented lesions of cutaneous metastases were vascular patterns. The most frequent sub-type of vascular patterns was serpentine (or linear irregular vessels). Other patterns were arborizing vessels, dotted vessels, and comma-shaped vessels. On dermoscopy, 59% of non-pigmented lesions having a vascular pattern had a mixed type of vessels, while 12% of cases had a structureless or homogeneous pink appearance, without discrete vessels. The main dermoscopic manifestations were vascular patterns, but also had some red or blue lacunas, resulting from traversing capillaries and bleeding in dermis.^[5]

Skin metastases from liver cancers represent a dismal prognosis for most patients, with overall survival rate varying from a few weeks to 6 months. Surgery is the primary treatment. Radiotherapy, radiofrequency ablation, and targeted drug therapy can improve survival rate of patients with advanced HCC.^[1]

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient has given his consent for his images and other clinical information to be reported in the article. The patient understands that his name and initials will not be published and due efforts will be made to conceal the identity of the patient, although anonymity cannot be guaranteed.

Conflicts of interest

None.

Correspondence to: Dr. Lin Cai, Department of Dermatology, Peking University People's Hospital, Beijing 100044, China
E-Mail: scailin66@hotmail.com

Copyright © 2019 The Chinese Medical Association, produced by Wolters Kluwer, Inc. under the CC-BY-NC-ND license. This is an open access article distributed under the terms of the Creative Commons Attribution-Non Commercial-No Derivatives License 4.0 (CCBY-NC-ND), where it is permissible to download and share the work provided it is properly cited. The work cannot be changed in any way or used commercially without permission from the journal.

Chinese Medical Journal 2019;132(17)

Received: 27-06-2019 Edited by: Li-Shao Guo

Access this article online

Quick Response Code:



Website:
www.cmj.org

DOI:
10.1097/CM9.0000000000000413

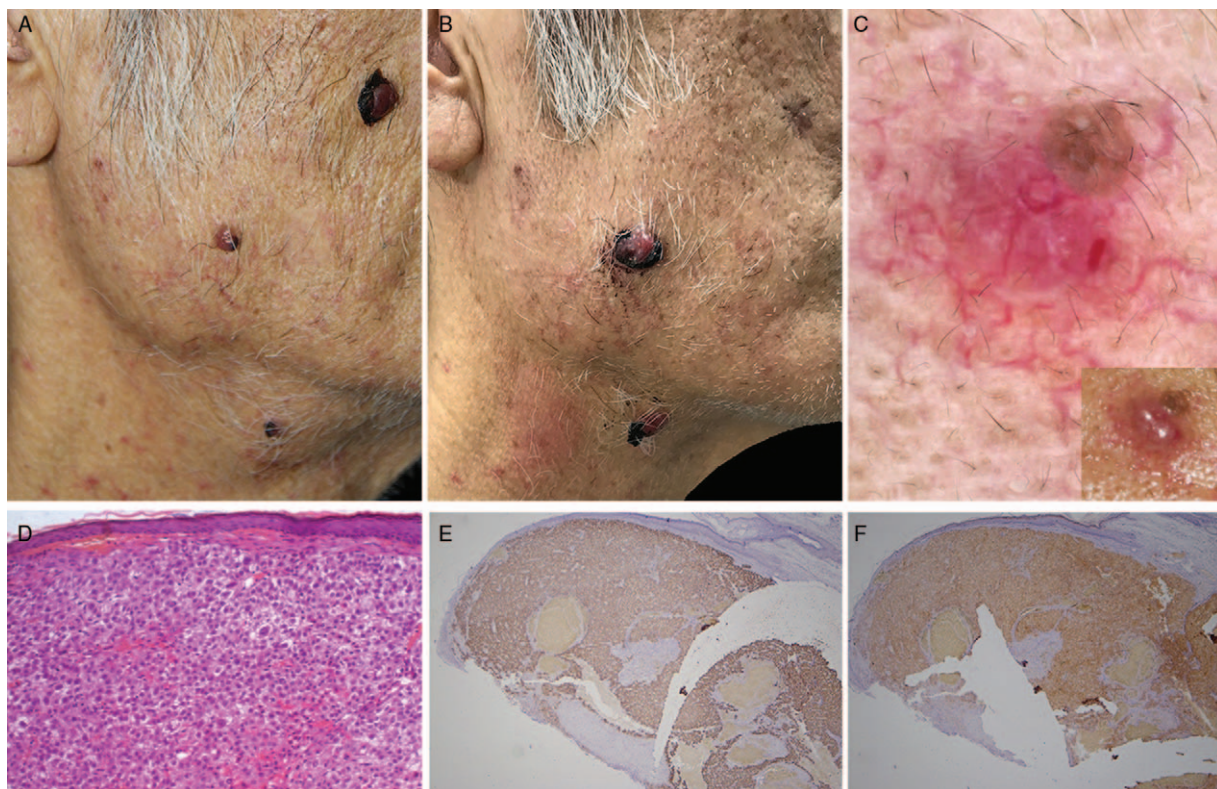


Figure 1: The clinical manifestation, dermoscopic and pathological findings of the patient. (A) Three big lesions on the face. (B) These three lesions grew rapidly in 20 days. (C) Dermoscopic examination of one nodule over the forehead revealed multiple linear irregular and short branching vessels (original magnification $\times 40$). (D) Histopathology showed a large number of mass tumor cells in dermis with no connection to the overlying epidermis (Hematoxylin-eosin staining, original magnification $\times 200$). (E, F) Immunohistochemical staining for hepatocyte (E) and arginase-1 (F) positive in tumor cells (original magnification $\times 40$).

References

1. Hauch AT, Buell JF, McGowan M, Parisha B, Lewin E, Mary K, *et al*. Case report cutaneous metastases from primary hepatobiliary tumors as the first sign of tumor recurrence following liver transplantation. *Case Rep Transpl* 2014;2014:83894. doi: 10.1155/2014/838949.
2. Huang YJ, Tung WC, Hsu HC, Wang CY, Huang EY, Fang FM. Radiation therapy to non-iatrogenic subcutaneous metastasis in hepatocellular carcinoma: results of a case series. *Br J Radiol* 2008;81:143–150. doi: 10.1259/bjr/81811976.
3. Cong W, Tan L, Zhang S, Xian Z, Wu W, Pan J, *et al*. Immunohistochemical spectrum in the detection and differentiation of intrahepatic neoplasms (in Chinese). *Chin J Oncol* 2002;24:553–556.
4. Chernoff KA, Marghoob AA, Lacouture ME, Deng L, Busam KJ, Myskowski PL. Dermoscopic findings in cutaneous metastases. *JAMA Dermatol* 2014;150:429–433. doi: 10.1001/jamadermatol.2013.8502.
5. Patel N, Sheehan-Dare G, Weir J, Verma S, Fearfield L. Cutaneous metastasis as the first presentation of hepatocellular. *Hepatology* 2018;67:1631–1633. doi: 10.1002/hep.29615.

How to cite this article: Liu XY, Jin J, Zhang S, Zhang H, Zhao Y, Cai L, Zhang JZ. Dermoscopy of cutaneous metastases from primary hepatocellular carcinoma. *Chin Med J* 2019;132:2131–2132. doi: 10.1097/CM9.0000000000000413