Palmar metastasis of an adenocarcinoma of the esophago-gastric-junction: First case report

Lars-Peter Kamolz, Wolfgang Stiglbauer, Friedrich Längle

Section Plastic, Aesthetic and Reconstructive Surgery, Department of Surgery, Landesklinikum Wiener Neustadt, Corvinusring 3-5, 2700 Wiener Neustadt, Austria
Division of Plastic, Aesthetic and Reconstructive Surgery, Department of Surgery, Medical University of Graz, Auenbruggerplatz 29, 8036 Graz, Austria
Institute of Pathology, Landesklinikum Wiener Neustadt, Corvinusring 3-5, 2700 Wiener Neustadt, Austria
Department of Surgery, Landesklinikum Wiener Neustadt, Corvinusring 3-5, 2700 Wiener Neustadt, Austria

ABSTRACT

INTRODUCTION: Hand metastasis represents only approximately 0.007–0.2% of all metastatic lesions. The most common origin of hand metastasis is the lung, which is approximately 50% of all cases, followed by breast and kidney. Hand metastasis from gastric or esophageal cancer is even much more rare.

PRESENTATION OF CASE: This is the first case report of a metastasis to the palm of hand (tendon) due to an adenocarcinoma of esophago-gastric-junction.

DISCUSSION: While most of the esophageal and gastric carcinomas metastasizes to liver, lungs and brain, the rare possibility of encountering metastasis to the hand either to the bone, but also to the tendon exists. Therefore, we recommend obtaining a thorough history and a detailed clinical examination, plain radiographs, followed by axial imaging techniques like MRI and a histopathologic evaluation.

CONCLUSION: Even if metastatic lesions to the hand are really rare, the surgeon should always be suspicious of a metastatic lesion, when presented with a patient older than 40 years who has a history of cancer.

© 2012 Surgical Associates Ltd. Published by Elsevier Ltd. All rights reserved.

1. Introduction

Hand metastasis represents only approximately 0.007–0.2% of all metastatic lesions. The most common origin of hand metastasis is the lung, which is approximately 50% of all cases, followed by breast and kidney. Hand metastasis from gastric or esophageal cancer is even much more rare. There are only a few case reports dealing with metastasis to the bones of hand from gastric cancer. We present the first case of 69-year-old man who had a metastasis located in the palm of the hand surrounding the flexor tendons of the 3rd axis from a adenocarcinoma of the esophago-gastric-junction.

2. Presentation of the case

Our patient was 69-year-old male, who came to the Department of Surgery mainly because of nausea and hematemesis. Gastroscopy in March 2011 revealed an ulcerovegetan mass 33 cm distal to the row of teeth. The histopathologic finding was a grade 2 adenocarcinoma (Her 2-neu (4B5): positive (Score 3+)). The patient’s laboratory findings included a CEA of 326 and CA 72-4 of 40 U/ml. Thoracic and abdominal computed tomography (CT) showed several suspected enlarged lymph nodes in the distal and dorsal part of the mediastinum close to the esophagus. There were no other metastatic findings. The patient was reviewed and discussed at the interdisciplinary tumor board of the hospital; he received neoadjuvant chemotherapy due to the size of the tumor from April 2011 on consisting of Epirubicin/Oxaliplatin/Xeloda. At the end of April there was a shift from Epirubicin to Herceptin. In May due to nausea, diminished appetite and swallowing problems the patient received an esophageal stent and parenteral nutrition.

A resection of the distal esophagus, cardia and fundus together with an orthotopic gastric transposition according to Ivor Lewis was performed in July. Histopathologic evaluation of the mass indicated a postchemotherapeutic partial regressive converted adenocarcinoma of the esophago-gastric-junction (UICC Classification: ypT3 N2 (6/33) R0 L1 V0).

In November the patient was presented to the Section of Plastic, Aesthetic and Reconstructive Surgery because of a localized swelling in his left palm. The mass in his hand was painless and solid. There was a slight impairment of flexion of the 3rd digit, but no impairment concerning vascularization and sensation. There was no erythema and no signs of infection. An ultrasound and magnetic resonance imaging (MRI) of the hand revealed a sharp margined, 27 mm × 18 mm large lesion partially surrounding the flexor tendons of the 3rd axis. There was no contact to the metacarpal bone. The T1 weighted images of the lesion was hypo-intense and the T2 weighted images inhomogeneous hypo-intense too. After administration of the contrast agent there was a
Fig. 1. MRT images of the hand and the metastasis.

Fig. 2. (a) Histologic section of the metastasis (adenocarcinoma of the esophago-gastric-junction). (b) Her2 pos. (c) IH-MUC5AC-expression.
massive inhomogeneous, peripherally accentuated enhancement. There was no infiltration of the surrounding tissue observable (Fig. 1). The radiologist diagnosed either a lesion within a pigmented villonodular synovitis or a metastatic lesion, but he stated that according to the literature the metastatic lesion is much more unlikely than a villonodular synovitis. Based on the result of the MRI an in toto removal of the lesion was performed. The pathologic evaluation (December 2011) revealed a metastasis of an adenocarcinoma of the esopago-gastric-junction (Her 2-neu (485): positive (Score 3+)) and an identical histomorphology in direct comparison to the other sections of the previous performed investigations (Fig. 2). CT of the thorax and abdomen showed no changes to the previous scan. The patient was re-reviewed and discussed at the interdisciplinary tumor board of the hospital. A chemotherapy with Taxotere and Cisplatin every 3 weeks and Herceptin every 3 weeks was recommended.

3. Discussion

Metastatic tumors of the hand are very uncommon. Of the reported cases, the majority arises from primary bronchogenic carcinoma, followed by breast kidney and rarely stomach and colon. Esophageal and gastric cancer usually metastasizes to liver, lungs and brain. Only a very few cases have been reported with metastasis to the hand mainly involving the bones. Metastasis to the bones normally causes pain, swelling, erythema, soft tissue ulceration and osteolytic destruction.

In our patient, the clinical picture presented by our patient together with the result of the MRI showed features that resemble those of a villonodular synovitis. The lesion was not involving the bone, but partly surrounding the flexor tendons. It caused localized swelling, but without pain, no erythema and no soft tissue ulceration. Moreover there was no literature available concerning metastasis to the palm on basis of an adenocarcinoma of esopago-gastric-junction.

Although metastases to the hand are really rare a high clinical suspicion must exist, especially in older patients with a known history of cancer. This case report highlights the importance of a thorough history and physical examination in patients with a known history of cancer. Therefore, we recommend obtaining a thorough history and a detailed clinical examination, plain radiographs, followed by axial imaging techniques like MRI and a histopathologic evaluation.

4. Conclusion

In conclusion, while most of the esophageal and gastric carcinomas metastasizes to liver, lungs and brain, the rare possibility of encountering metastasis to the hand either to the bone, but also to the tendon exists. The surgeon should always be suspicious of a metastatic lesion when presented with a patient older than 40 years who has a history of cancer.

Conflict of interest statement

There is no conflict of interest.

Funding

None.

Ethical approval

Written informed consent was obtained from the patient.

Author contributions

Lars-Peter Kamolz: plastic surgical treatment of the patient involved, data collection, writing. Wolfgang Stiglbauer: histologic evaluation, data collection writing. Friedrich Längle: surgical treatment of the patient involved, data collection, writing.

Contributor

Michael Reisegger: MRI images and analysis.

Acknowledgements

We like to thank Dr. Michael Reisegger for the excellent MRI images and his kind support.

References

1. Kerin R. Metastatic tumours of the hand: a review of the literature. J Bone Joint Surg 1983;65:1331–5.
2. Kerin R. The hand in metastatic disease. J Hand Surg 1987;12A:77–83.
3. Ozcanlı H, Ozdemir H, Ozenc A, Sıyıncı Y, Aydin AT. Metastatic tumors of the hand in three cases. Acta Orthop Traumatol Turc 2005;39:445–8.
4. Basora J, Ferez A. Metastatic malignancy of the hand. Clin Orthop Relat Res 1975;108:182–6.
5. Wu KK, Guise ER. Metastatic tumors of the hand: a report of six cases. J Hand Surg 1987;12A:271–6.
6. Carty HM, Simons AW, Isgar B. Breast carcinoma bone metastasis first presenting to single middle phalanx. Breast 2006;15:127–9.
7. Tolo ET, Cooney WP, Wenger DE. Renal cell carcinoma with metastases to the triquetrum: case report. J Hand Surg 2002;27A:76–81.

Open Access

This article is published Open Access at sciencedirect.com. It is distributed under the IJSCR Supplemental terms and conditions, which permits unrestricted non commercial use, distribution, and reproduction in any medium, provided the original authors and source are credited.