

## CLINICAL IMAGE

# Unresectable cutaneous metastatic tumor in the arm that underwent complete remission after radiotherapy

Takahiro Oike<sup>1,2,3</sup>  | Akiko Adachi<sup>1,2</sup> | Katsuyuki Shirai<sup>1,4</sup>  | Tatsuya Ohno<sup>1,2,3</sup>

<sup>1</sup>Department of Radiation Oncology, Sano Kousei General Hospital, Sano, Japan

<sup>2</sup>Department of Radiation Oncology, Gunma University Graduate School of Medicine, Maebashi, Japan

<sup>3</sup>Gunma University Heavy Ion Medical Center, Maebashi, Japan

<sup>4</sup>Department of Radiology, Jichi Medical University, Shimotsuke, Japan

## Correspondence

Takahiro Oike, Gunma University Heavy Ion Medical Center, 3-39-22, Showa-machi, Maebashi, Gunma 371-8511, Japan.  
Email: oiketakahiro@gmail.com

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Gunma University Heavy Ion Medical Center

## Abstract

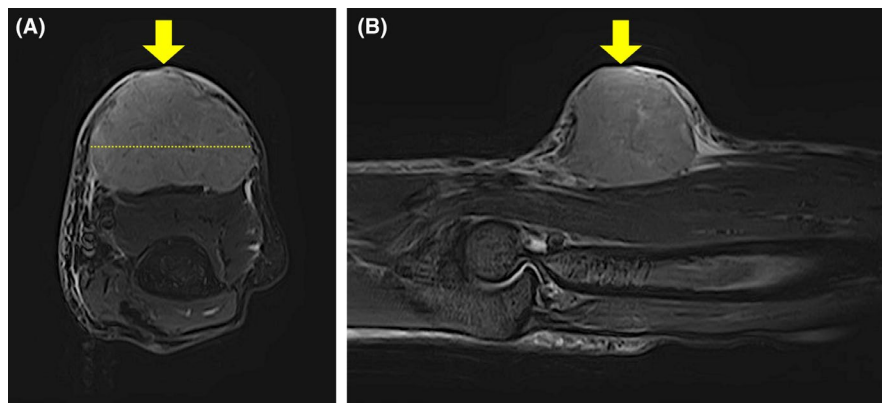
Cutaneous metastasis of solid malignancies can cause severe disfigurement, which reduces quality of life (QOL). This case indicates potential utility of photon radiotherapy for this disease, leading to recovery of QOL.

## KEYWORDS

cutaneous metastasis, oncology, palliation, quality of life, radiotherapy, skin metastasis

Here, we report a case of cutaneous metastasis of nonsmall-cell lung cancer to the arm. The patient was distressed by disfigurement caused by the metastatic tumor. Photon radiotherapy led to complete tumor remission with no adverse effects, contributing to recovery of the patient's quality of life.

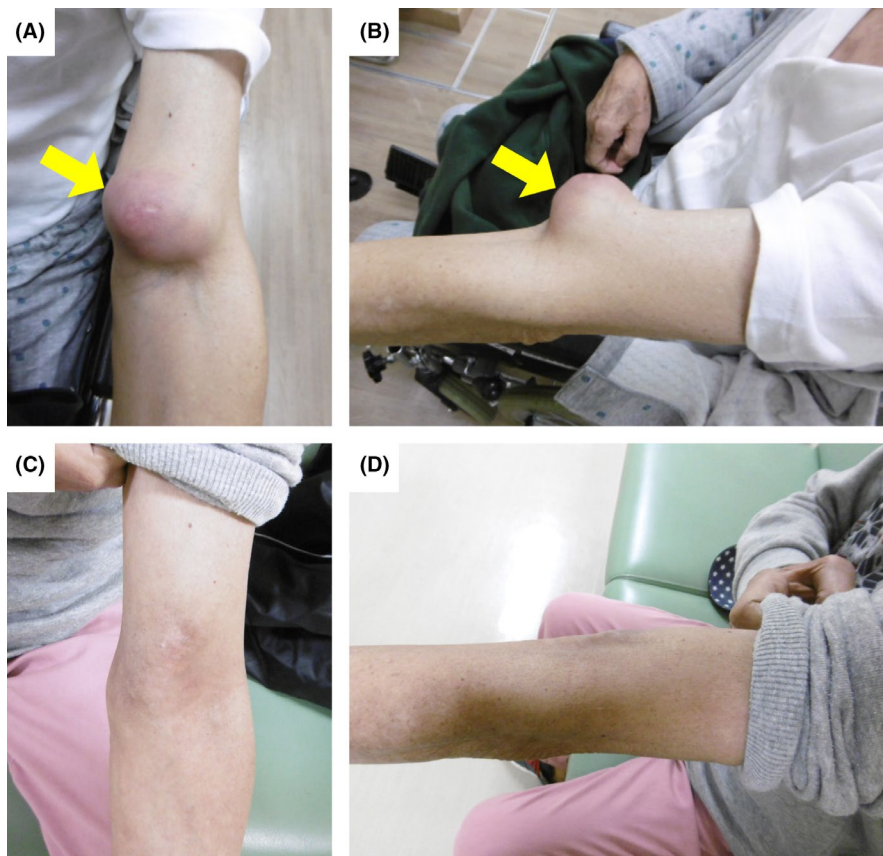
A 70-year-old male with nonsmall-cell lung cancer was referred to our radiation oncology unit for treatment of a cutaneous metastatic tumor in the left arm. The tumor had grown rapidly over the past 2 months; it was nonresponsive to platinum-based chemotherapy and was considered unresectable



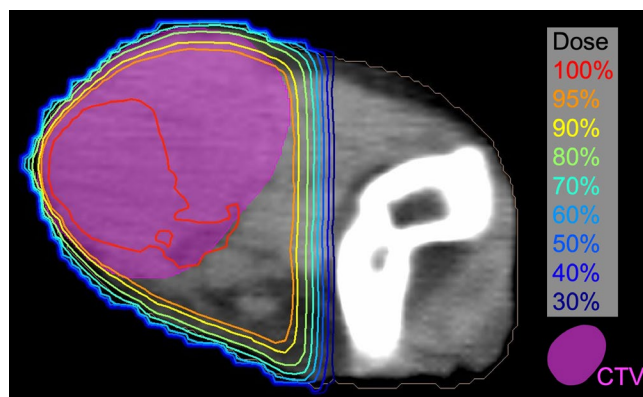
**FIGURE 1** T2-weighted magnetic resonance image of the metastatic tumor taken at the time of first referral to the radiation oncology unit. A, Axial plane. B, Sagittal plane. Arrows show the tumor. Dashed line shows the tumor diameter (53 mm)

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**FIGURE 2** Pictures of the patient's left arm. A, B, Pictures taken at the time of first referral to the radiation oncology unit. Arrows show the metastatic tumor. C, D, Pictures taken at 4 mo postcompletion of radiotherapy showing complete remission of the metastatic tumor



**FIGURE 3** Treatment plan for three-dimensional conformal radiotherapy. Isodose lines are shown on a computed tomography image. The clinical target volume (CTV) is indicated in solid magenta. A total of 45 Gy was prescribed, given in 15 fractions (five fractions per week) using four MV-X-rays at 0° and 180°

(Figure 1). The patient was distressed by the disfigurement (Figure 2A,B). We treated the tumor with photon radiotherapy (45 Gy in 15 fractions) (Figure 3), which led to complete remission with no adverse effects (Figure 2C,D). At 10 months postemergence of the cutaneous metastasis, the patient is enjoying life without symptoms, although progressive disease is present in other organs.

Cutaneous metastasis occurs in approximately 5% of patients with solid malignancies<sup>1</sup> and is associated with a poor prognosis (ie, median survival, 7.5 months).<sup>2</sup> Metastasis to the limbs is rare<sup>2</sup>; however, disfigurement caused by such tumors reduces quality of life (QOL).<sup>1</sup> Optimal radiotherapy protocols for cutaneous metastases remain unclear due to lack of evidence; a meta-analysis contained only two prospective studies investigating this issue.<sup>1</sup> The present case indicates the potential utility of radiotherapy for cutaneous metastatic tumors in the limbs, leading to recovery of QOL.

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#### CONFLICT OF INTEREST

None declared.

#### AUTHOR CONTRIBUTIONS

TO: treated the patient and wrote the manuscript; AA: performed patient follow-up, obtained informed consent, and

wrote the manuscript; KS: treated the patient; TO: treated the patient and finalized the manuscript.

#### DATA AVAILABILITY STATEMENT

Raw clinical data presented in this study are not open to public based on consent from the patient.

#### ORCID

Takahiro Oike  <https://orcid.org/0000-0003-1332-4306>

Katsuyuki Shirai  <https://orcid.org/0000-0003-2096-8847>

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