

A case of malignant lymphoma of the hand

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Malignant lymphoma is rarely seen in the hand. We present a case of malignant lymphoma of the hand with Ga-67 citrate and MR images, and discuss the usefulness of Ga-67 citrate scintigraphy for diagnosing this condition.

Key words: malignant lymphoma, hand, soft tissue, Ga-67 citrate, MRI

INTRODUCTION

MALIGNANT LYMPHOMA (ML) is rarely seen in hands. And there is not an extensive literature on ML presenting in soft tissue.^{1,2} We present a case of ML of the hand with Ga-67 citrate and MR images, and discuss the usefulness of Ga-67 citrate scintigraphy for diagnosing this condition.

CASE REPORT

A 76-year-old male was referred to our hospital because of a swelling of the right hand (Fig. 1). Ten months previously he noticed swelling of the right hand, but neglected it because he remained asymptomatic. The swelling slowly progressed. Routine hematological and blood chemistry findings were not remarkable. Soluble interleukin-2 receptor was 1150 U/ml (normal range 145-519).

MR images showed a tumor on the back of the hand. The tumor showed iso-intensity on T1-weighted images, high intensity on T2-weighted images, and homogeneous enhancement. Flow void was recognized in the tumor (Fig. 2 upper: T1-weighted, middle: T2-weighted, lower: enhanced T1-weighted).

Ga-67 citrate scintigram showed intense tracer uptake in the tumor suggestive of ML (Fig. 3), and biopsy of the tumor was performed. Histopathologic examination showed ML (T-cell, pleomorphic small/medium sized).

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The dermis was intact, and ML cells occupied subcutaneous tissue (Fig. 4 A and B). Ga-67 scintigram showed no other abnormal tracer uptake, and CT images of the thorax, abdomen and pelvis also showed no other lesion. Radiation therapy (2 Gy \times 24, Total 48 Gy) was performed, and the tumor decreased in size. Follow-up Ga-67 citrate scintigram showed greatly decreased tracer uptake in the tumor (Fig. 5).

DISCUSSION

ML localized in subcutaneous tissue but not in dermis is very rare. In the present case the back of the hand seemed to be normal, and it was difficult to confirm ML by physical findings, but Ga-67 citrate scintigram showed intense tracer uptake in the tumor suggestive of ML, and biopsy was performed to confirm the scintigraphic finding. Ga-67 citrate scintigraphy provided useful information for diagnosing this condition.

Histopathological findings showed that the lesion was predominantly localized in subcutaneous tissue but not in dermis. In many reports, ML originating in subcutaneous tissue has been classified as cutaneous ML, whereas others only of dermis origin have been classified as cutaneous ML. There seems no consistent classification of ML originating in subcutaneous tissue.¹⁻⁵ We considered that this case was ML derived from soft tissue because subcutaneous tissue anatomically belongs to soft tissue. ML presenting in soft tissue is extremely rare.^{1,2}

In conclusion, we report a rare case of ML of the hand and showed the usefulness of Ga-67 citrate scintigraphy, although the usefulness of Ga-67 citrate scintigraphy for ML is already well known.^{6,7}

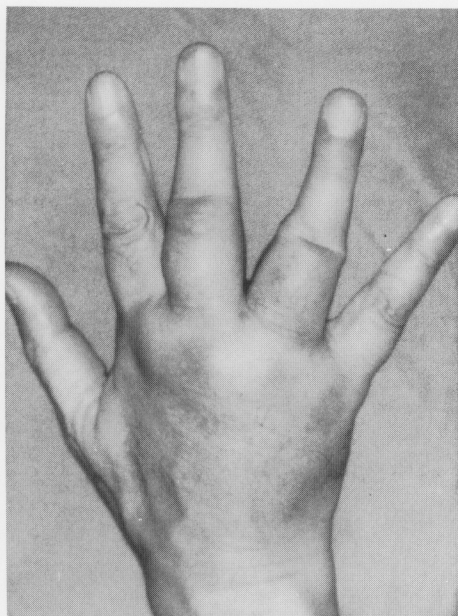


Fig. 1 A 76-year-old male was referred to our hospital because of a swelling of the right hand.

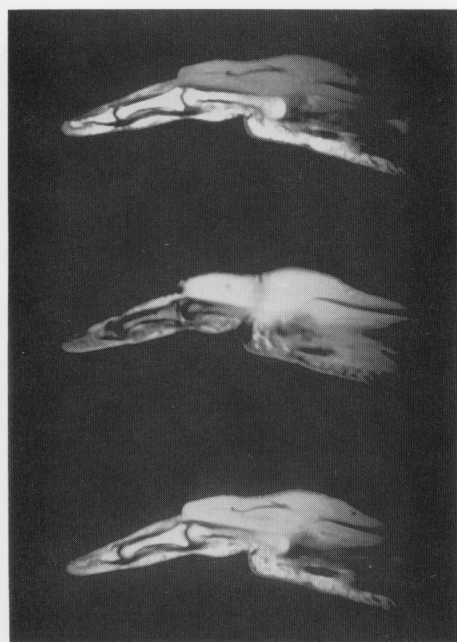


Fig. 2 MR images showed a tumor of the back of the hand. The tumor showed iso-intensity on T1-weighted, high intensity on T2-weighted images, and homogeneous enhancement. Flow void in the tumor was recognized (upper: T1-weighted, middle: T2-weighted, lower: enhanced T1-weighted).

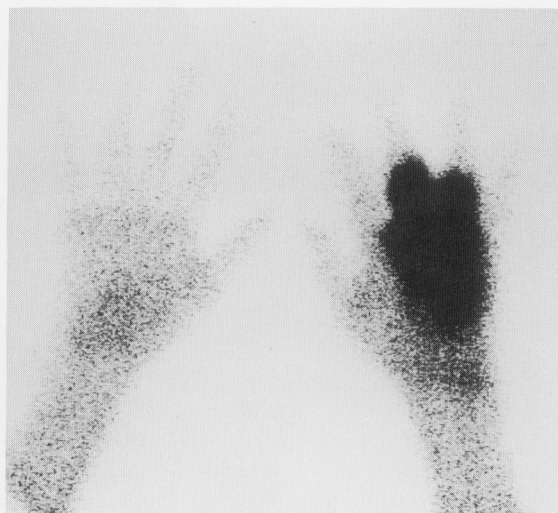
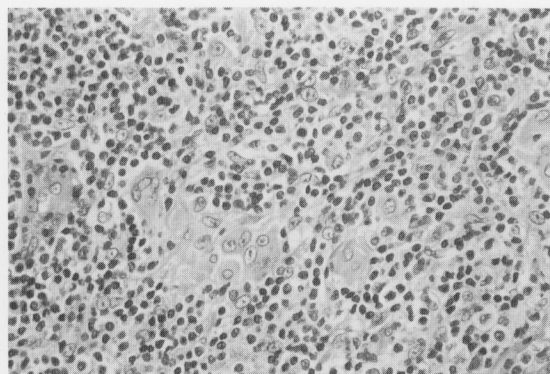
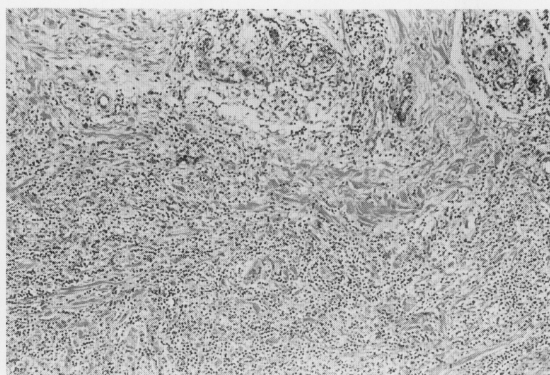


Fig. 3 Ga-67 citrate scintigram showed intense uptake in the tumor.



A



B

Fig. 4 Pathologic examination showed malignant lymphoma (T-cell, pleomorphic small/medium sized) (A). The lesion was localized in the subcutaneous tissue, and the dermis remained normal (B).

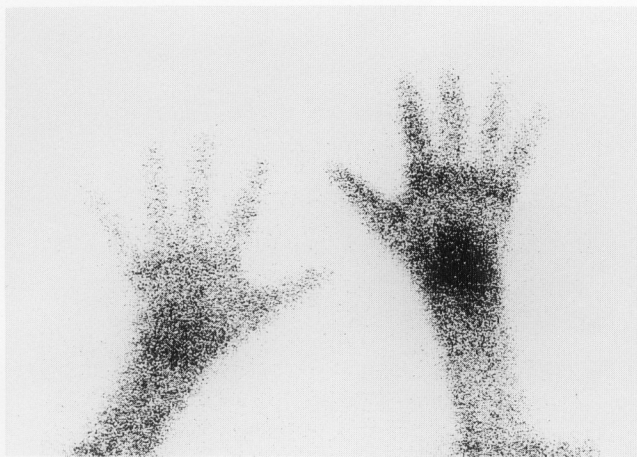


Fig. 5 After radiation therapy, follow-up Ga-67 citrate scintigram showed markedly decreased tracer uptake in the tumor.

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