A 93-year-old woman presented with a 3 × 3 cm ulcerous lesion on the lateral side of her right lower leg. Biopsy confirmed the diagnosis of malignant melanoma. PET/CT imaging was performed for staging of this high risk melanoma patient. The plasma glucose level of the patient was 93 mg/dl before the tracer injection. PET/CT whole-body imaging was performed at 120 minutes after the intravenous injection of 255 MBq $^{18}$F-FDG. Whereas the cranial CT-image was normal (fig. 1A), PET (fig. 1B) shows a focus of increased tracer. PET/CT fusion image (C) permits the distinct allocation of the increased $^{18}$F-FDG uptake in m. pterygoideus lateralis (white-arrow).

**CLINICAL CASE**

A 93-year-old woman presented with a 3 × 3 cm ulcerous lesion on the lateral side of her right lower leg. Biopsy confirmed the diagnosis of malignant melanoma. PET/CT imaging was performed for staging of this high risk melanoma patient. The plasma glucose level of the patient was 93 mg/dl before the tracer injection. PET/CT whole-body imaging was performed at 120 minutes after the intravenous injection of 255 MBq $^{18}$F-FDG. Whereas the cranial CT-image was normal (fig. 1A), PET (fig. 1B) shows a focus of increased tracer. PET/CT fusion image (fig. 1C) permits the distinct allocation of the increased $^{18}$F-FDG uptake in m. pterygoideus lateralis. Increased uptake of $^{18}$F-FDG in skeletal muscle after exercise is well documented. Similarly, increased $^{18}$F-FDG uptake in the head and neck musculature was found in patients with increased muscle-tonus or chewing activity$^{1-3}$. There was no chewing activity before and during the incubation period in our patient. As this case demonstrates, PET/CT imaging enables the correct anatomical localization of $^{18}$F-FDG uptake, and thereby excludes sources of unspecific PET findings.

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REFERENCES


Yüksel M et al. Contribution of PET/CT for differentiation of FDG uptake in lateral pterygoid muscle in a patient with malignant melanoma.