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Original Research

# Coronavirus disease 2019 vaccine mimics lymph node metastases in patients undergoing skin cancer follow-up: A monocentre study



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## KEYWORDS

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**Abstract Introduction:** The coronavirus disease 2019 (COVID-19) pandemic has changed the lives of people around the world. Fortunately, sufficient vaccines are now available. Local reactions with ipsilateral lymphadenopathy are among the most common side effects. We investigated the impact of lymphadenopathy after COVID-19 vaccination on the value of ultrasound in tumour patients.

**Patients and methods:** Patients with melanoma or Merkel cell carcinoma were included who underwent lymph node excision and received COVID-19 vaccination within 6 weeks before surgery. The consistency of the preoperative ultrasound findings with the histopathologic findings was investigated.

**Results:** Eight patients were included (two Merkel cell carcinoma and six melanoma patients) who underwent lymph node excision between 16th April 2021 and 19th May 2021 and had previously received COVID-19 vaccination. In three of the eight patients (one Merkel cell carcinoma and two melanoma patients), lymph node metastases were erroneously diagnosed preoperatively during tumour follow-up with physical examination, ultrasound, and/or fluorodeoxyglucose (FDG)–positron emission tomography (PET)/computed tomography (CT). In these three patients, the suspected lymph node metastases were located in the left axilla after COVID-19 vaccination in the left upper arm, which resulted in selective lymph node removal in two patients and complete lymphadenectomy in one patient.

**Conclusion:** COVID-19 vaccine–associated lymphadenopathy is expected to be observed

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