

## METASTATIC CUTANEUS MELANOMA OF THE GALLBLADDER - CASE REPORT

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**Abstract:** Melanoma is an aggressive malignant tumor that originates from melanocytes and most commonly occurs on the skin. Dominantly metastasize to regional lymph nodes, in the brain and lungs and rarely in the gastrointestinal (GI) system. The aim of this report is to present a rare case of metastasis of cutaneous malignant melanoma in the gallbladder, discovered 10 months after excision of the primary melanoma of the skin. A 45-year-old patient was hospitalized in our hospital due to abdominal pain in right upper quadrant and nausea lasting for 7 days. An intraluminal substrate was found in the gallbladder with computed tomography and later a CT guided biopsy was performed on it, thus proving a metastatic deposit of primary malignant melanoma.

Metastatic deposits in the gallbladder are extremely rare finding, and 238 cases have been described in the literature.

**Key words:** malignant melanoma, metastases, CT, biopsy, gallbladder.

### INTRODUCTION

Cutaneous melanoma is an aggressive disease, which arises from melanocytes, a type of cells found in the epidermis, uvea, meninges, intestinal tract, upper respiratory tract, and the regional lymph nodes. Statistically is less than 5% of all skin cancer cases, but it has extremely high morbidity and mortality due to its high tendency to metastasize throughout the body (1–4). Common sites of metastases are the lungs, brain, liver, and GI tract (1–3). In 2–4% of patients with cutaneous melanoma that are diagnosed with gastrointestinal metastases, mostly affected parts are small bowel, colon, and stomach (1, 2). Metastatic involvement of the gall-

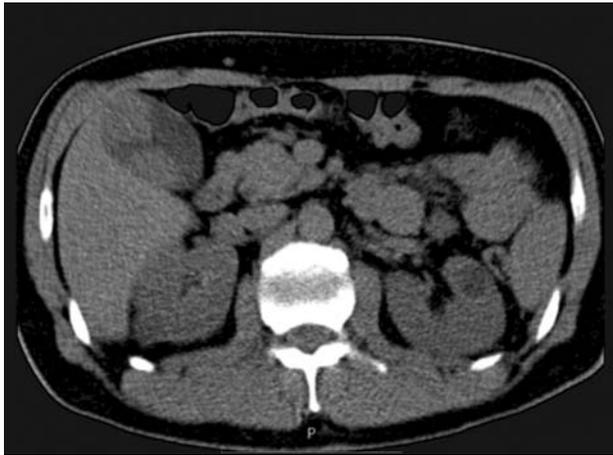
bladder is rare, and is often part of a complex of metastases in other parts of the body with a very poor prognosis and non-specific symptoms. According to recent literature data - there is an increased number of patients with diagnosed skin melanoma that metastasized in the gallbladder.

In this article, we present a rare case of melanoma metastasis in the gallbladder following cutaneous melanoma operative treatment. A patient was admitted in our emergency unit with right upper quadrant abdominal pain and nausea lasting for 7 days. Palliative therapy was administered; radiological examination and laboratory tests were performed as well as biopsy. Because of complications from other organs failure the patient past away after four weeks.

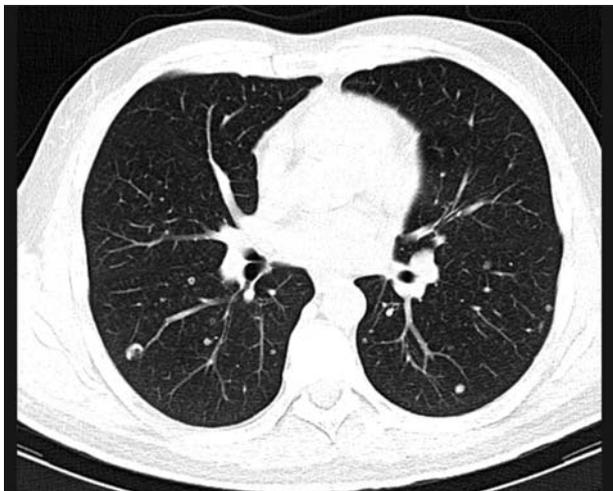
### CASE REPORT

Written consent for publishing medical data for the above-mentioned patient was obtained from his family. We present a 45-year-old male with a medical history of cutaneous melanoma of the back, admitted to the hospital with strong abdominal pain in the right upper quadrant and persistent nausea that started 7 days ago. Ten months prior to this admission, the patient was diagnosed with a nodular malignant melanoma in his left suprascapular region, Breslow thickness 11.5 mm, invasive to Clark anatomic level IV. It was done a local excision with broader margins with a negative sentinel node biopsy at the time. After the intervention he started with radiation therapy and continued with immunotherapy (interferon). The patient did not tolerate the oncologic therapy and it was incompletely finished. Contrast-enhanced computed tomography (CT) examinations of the head, thorax, and abdomen after

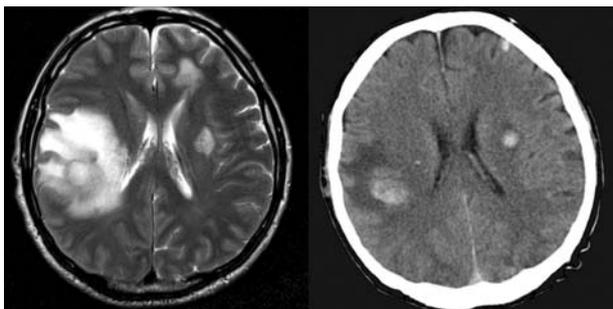
the intervention did not show signs of any distant metastasis. After nine months of surgery, the patient was admitted at the hospital with worsened general condition with neurological outbursts. Brain metastases were confirmed by CT. After four weeks, the patient was admitted at the hospital with the a forementioned symptoms. Staggering the blood count and metabolic panel was not significantly increased or reduced. An abdominal ultrasound showed 2 x 1 cm multiple gallbladder lesions with high blood flow on Doppler, later abdomi-



*Figure 1. Abdominal CT scan with gallbladder metastases*



*Figure 2. Chest CT scan with multiple metastases*



*Figure 3. MRI and CT scan with multiple metastases*

nal computed tomography (CT) confirmed it (Figure 1). Additionally brain CT and MRI were performed as well as chest CT (Figure 2, 3), all three trials showed multiple metastases. Due to his condition, the patient was not operated but was made a CT-guided core biopsy of the lesions in the gallbladder. Pathology confirmed metastatic melanoma of the gallbladder. The patient was given therapy to relieve the abdominal pain and nausea, four weeks later he passed away from complications.

## DISCUSSION AND CONCLUSION

Melanoma is cancer, which originates from melanocytes-dendritic type cells, which provides melanin to keratocytes and they can be found in most visceral organs (5). This type of malignancy represents less than 5% of all skin cancers (5), and is associated with high mortality and potential for wide metastatic spread. As soon as metastatic disease occurs, the prognosis is very poor with a mean survival rate of approximately 8.4 months (6). When melanoma starts to spread, it penetrates first the local lymph vessels and hematogenous to more distant sites like lungs (50-75%), liver (54-77%), and brain (7). Patients diagnosed with skin melanoma have rear GI metastases only 2-4% (8), most common sites for GI metastases are small bowel (35-65%), colon (5-9%) and stomach (5-7%) (1, 2). Cutaneous metastatic melanoma to the gallbladder is rarely found during patients life, 5-year survival is reported in only 15% of the diagnosed (9), that's why most of the statistics come from autopsy reports that range the incidence of this metastatic disease from 15 to 20% (10). Most patients are asymptomatic, the symptoms occur when the disease is widespread (11). On the other site, there is a small group of patients with acute cholecystitis, bile duct obstruction as well as hemobilia and fistulas that give an early presentation of this type of metastases. (12, 13). Abdominal ultrasound and Doppler ultrasound showed presence of a gallbladder malignancy by detecting high blood flow in that region (single or multiple infiltrative lesions at least 1cm in diameter attached to the inner mucosal wall). With that they are first modalities of choice for evaluation of gallbladder lesions (14). Secondly comes CT (2), and last biopsy with immune histochemical staining as final step to confirm the diagnosis (2). Positron emission tomography is used to detect the extent of disease spread. Surgery as a treatment for metastatic melanoma to the gallbladder is arguable since most of the cases are already with widespread disease (1). Metastectomy is considered for palliative and symptom-reducing effects approach in cases of a single localized lesion to the gallbladder and also as a preven-

tion of further spreading of the disease ,with 1-year survival postoperatively (1, 3). Sometimes a liver wedge resection is needed to avoid spreading of neoplastic cells (1, 3). High survival rates are seen in patients that are treated with chemoimmunotherapy with widespread/non-localized disease (1, 3). The chemoimmunotherapy includes use of high-bolus interleukin-2(IL-2), with its limitation in use due to toxicity (1, 3). Along this therapy BRAF inhibitors are used, but their effectiveness is demonstrated with the parallel use of MEK inhibitors, which results with lower adverse reactions and prolong disease free-survival, compared to isolated use of BRAF inhibitors (1, 3). As conclusion good treatment can be achieved with laparoscopic cholecystectomies and/or chemoimmunotherapy. This case re-

port was presented in order to teach us to make more prompt workup of potential metastases in patients with diagnosed cutaneous melanoma.

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## Sažetak

### METASTAZA KUTANOG MELANOMA U ŽUČNU KESU - PRIKAZ SLUČAJA

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Melanom je agresivni maligni tumor koji potiče od melanocita i najčešće se javlja na koži. Dominantno metastazira u regionalne limfne čvorove, mozak, pluća, a ređe u gastrointestinalni sistem. Cilj ovog rada jeste da prikaže redak slučaj metastaziranja kožnog melanoma u žučnu kesu, otkrivenog 10 meseci nakon uklanjanja primarnog melanoma kože. Pacijent starosti 45 godina je hospitalizovan u našoj bolnici zbog bolova u trbuhu u predelu desnog gornjeg

kvadranta i mučnine u trajanju od sedam dana. Intraluminalni supstrat je kompjuterskom tomografijom, a kasnije i CT biopsijom pronađen u žučnoj kesi, čime je dokazano metastatsko taloženje primarnog malignog melanoma. Metastatske naslage u žučnoj kesi su izuzetno redak nalaz, a u literaturi je opisano 238 slučajeva.

**Ključne reči:** maligni melanom, metastaze, CT, biopsija, žučna kesa.

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