**Abstract.** – We report a case of malignant melanoma of the kidney presenting as a primary tumor. This tumor was found incidentally in a 67-year-old man. This is a rare primary malignant melanoma case of the kidney in 67-year-old man, with no history of melanoma, presenting an asymptomatic solitary renal mass. The patient underwent a right radical nephrectomy, we discuss the probability that this tumor is renal in origin and directly linked to the origin of malignant melanoma.

**Key Words:**

Melanoma, Malignant melanoma, Kidney.

**Introduction**

Malignant melanoma is a tumor that can originate in body tissues containing pigment cells. Although renal metastasis of malignant melanoma are rarely evident clinically they are not rare at autopsy. When a melanoma metastasis to the kidney, it typically produces multiple small cortical nodules not sufficient to become clinically apparent. Malignant melanoma presenting as a renal mass is not common. Seven cases of secondary renal melanoma initiating as renal cell carcinoma and three cases of solitary renal melanoma with an unknown origin were reported in the literature. We report a case of malignant melanoma presenting as a renal mass that was found incidentally, and confirmed by surgical and subsequent pathologic examination. We think that this is a primary malignant melanoma of the kidney.

**Case Report**

A 67-year-old male patient was admitted with pain being in area of right lumbar. At admission to our Hospital he underwent physical examination findings were unremarkable; no skin lesions were present. Ophthalmologic examination was negative for an ocular primary tumor. The results of urinalysis showed slight microscopic hematuria. The ultrasonographic examination revealed a rounded, hypoechoic mass, with a diameter of about 5 cm, in the lower pole of the right kidney. A right renal mass that had an irregular internal density, and did not show evidence of visceral metastasis, was seen on the abdominal computerized tomography (CT) (Figure 1).

Results of routine blood testing were within the normal ranges. A right radical nephrectomy was performed the patient. Cross-section side (on the cut surface) settled in the lower pole, the macroscopically, mass was in 4.5 cm diameter and it had areas of focal hemorrhage.

The postoperative period was uneventful. 10 formalin fixed, paraffin-embedded sections were evaluated with light microscope by staining hematoxylin and eosin (H&E). The tumor separated with partly smooth boundary from normal kidney tissue and with a large eosinophilic cytoplasm, large nucleus was detected in some intranuclear inclusions (Figure 2).

Mitosis and atypia presented. In addition to, tumor thrombus was observed in the lumen of renal vein. Immunohistochemically, the tumor cells stained positive for HMB45 antibody and S100 protein (Figure 3).

After surgery, complete physical examinations were performed again. The results of the skin examination were normal, as were the results of bone and gallium tumor scintographies, lung CT, brain magnetic resonance imaging (MRI), and gastroscopy. Human lymphoblastoid interferon-a therapy at 5 million IU/day commenced 2 weeks after surgery and was discontinued after 1 month due to the patient’s general fatigue and appetite loss.

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Secondary malignant melanoma of the kidney is not uncommon at autopsy. Stein and Kendall reported that 24% to 50% of the patients with malignant melanoma have renal metastases at autopsy. When a melanoma is metastatic to the kidney it typically produces multiple small cortical nodules not sufficient to become clinically apparent. In our case a solid mass was presented.

According to Stein and Kendall, a primary melanoma could not be located because the primary lesion had probably regressed. Birkhoff et al. reported that the normal human kidney does not involve melanin-synthesizing cells. So that we think malignant melanoma may appear in the kidney without epidermal tissue. The physical examination of the case two times was not detected in any pigmented skin lesion. This tumor histopathologically resembles a clear-cell sarcoma of tendons or aponeuroses. Clear-cell sarcoma is a soft-tissue tumor and it was reported in 1965 by Enzinger. Clear-cell sarcoma is also called malignant melanoma of soft tissue. Although clear-cell sarcoma is more deeply located typical forms of malignant melanoma, is nearly always intimately associated with tendons or aponeuroses, and lacks epidermal involvement and junctional changes. Tumor of the case located right kidney and no mass of his tendons or aponeuroses.

The present case is very rare, as there is fourth case with a diagnosis of primary malignant melanoma of kidney.

**References**

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