



# Incidental Neuroendocrine Carcinoma of the Gallbladder

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## ABSTRACT

Gallbladder cancer is rare and adenocarcinoma usually seen. Neuroendocrine carcinomas are rare in malignancies. Generally diagnosis is not made in the pre-operative period. They are generally diagnosed after cholecystectomy through histopathological examination. In this type of tumors primary treatment is surgical and cure can only be through a complete surgical resection. The histopathological examination of the neuroendocrine carcinoma after laparoscopic cholecystectomy in a patient wanted to present the report. This is about the treatment of cancers, certain drugs used for chemotherapy after surgery. The patient's 32-month follow-up of any problems encountered.

**Key words:** Gallbladder, neuroendocrine carcinoma, cholecystectomy.

## Safra Kesesinin İnsidental Nöroendokrin Karsinomu

### ÖZET

Safra kesesi kanserleri nadir görülür ve genellikle adenokarsinomdur. Nöroendokrin karsinomlar maligniteler içinde nadirdir. Genellikle ameliyat öncesi dönemde tanı konulamaz. Kolesistektomiden sonra histopatolojik incelemeyle saptanırlar. Bu tümörlerde primer tedavi cerrahidir ve kür şansını sadece tam bir cerrahi rezeksiyon sağlar. Laparoskopik kolesistektomi sonrası histopatolojik incelemede nöroendokrin karsinom rapor edilen bir hastayı sunmak istedik. Cerrahi sonrası tedavide kemoterapotik ilaçlar uygulandı. Hastanın 32 aylık takiplerinde herhangi bir problemle karşılaşmadı.

**Anahtar kelimeler:** Safra kesesi, nöroendokrin karsinom, kolesistektomi

## INTRODUCTION

The gallbladder cancers are seen very rarely and their prognoses are bad. Diagnosis is generally made at late period. In 75-90 % of the cases the etiological reason is gallbladder stone. Besides, porcelain, cholecystitis, parasites and adenomatous polyps can be listed among its reason. Hystopathologic type is mostly adenocarcinoma (1). Neuroendocrine carcinomas which are seen less frequently are classified as endocrine cell tumor or small cell carcinoma (2). Here, we describe a case of incidental GB neuroendocrine carcinoma in a 65-year-old woman.

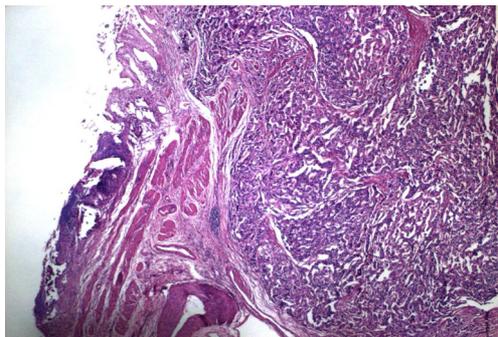
## CASE

Sixty-five year old female patient applied to our clinic with a complaint of right upper quadrant pain which had been going on for almost 2 months. In the examination of the patient, it was found out that she had sensitiveness in the right sub-costal region. In the ultrasonography of the abdomen, it was seen that the thickness of gallbladder was 5 mm and there were a number of stones in her lumen. The patient who was applied laparoscopic cholecystectomy was discharged on postoperative 1st day without any problem.

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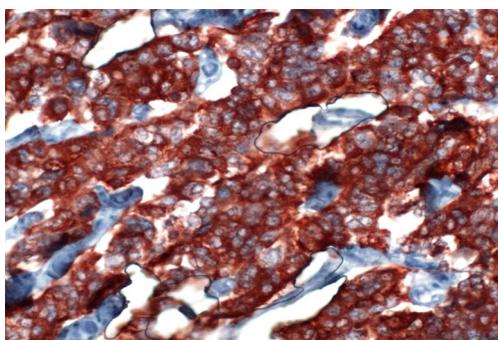
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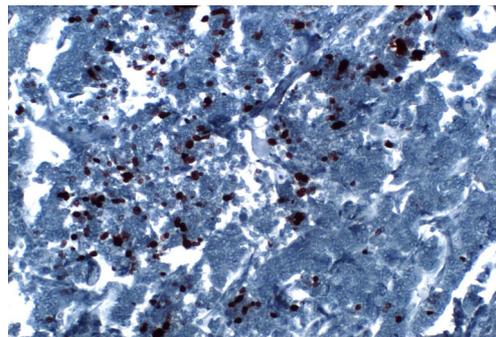


**Figure 1.** Tumor limited to a relatively uniform structure began under the mucous (hematoxylin and eosin stain, original magnification x 100)

Histopathologically malignant neuroendocrine tumor of the gallbladder were founded. In microscopic intersections, there found ulcerations in the epithelium of the gallbladder and starting from here a tumoral structure infiltrated to muscular layer (Figure 1). On the surface there were mucous glands which indicate gastric metaplasia. Immunohistochemical evaluation showed tumor cells for chromogranin (+), synaptophysin (+), cytokeratin (+) and CEA poor (+). Ki-67 index was found to be 30 % (Figure 2, 3). based on these findings a diagnosis was made of primary neuroendocrine carcinoma of the gallbladder. Post-operatively, our patient underwent a total body computed tomography (CT) scan and bone scintigraphy and the results were normal. After an uneventful recovery, our patient was discharged in good condition, and he is disease-free 32 months after surgical treatment.



**Figure 2.** Synaptofizin (+) tumor cells (original magnification x100)



**Figure 3.** 30 % of Ki-67 index

## DISCUSSION

Gallbladder cancers are rarely seen tumors. In spite of histopathological type definition, adenocarcinoma makes up more than 90 % of them (3). They are extremely fatal tumors. Neuroendocrine tumors are rarely seen and make up 0.5 % of gallbladder tumors (4). These incidental cancers are generally early phase cancers (5). In neuroendocrine carcinomas clinical findings are not different from cholelithiasis. Generally diagnosis is not made in the pre-operative period. They are generally diagnosed after cholecystectomy through histopathological examination. In this type of tumors primary treatment is surgical and cure can only be through a complete surgical resection (5, 6). The liver resection is controversial for all phases of the disease. In patients at T1 phase, simple cholecystectomy is adequate; there is no need for liver resection (7). If the tumor is spread to the liver parenchyma, liver resection is carried out to preserving negative borders. Our case was also assessed to be in T1 phase. The patient was applied laparoscopic cholecystectomy and we didn't need to do liver resection as the tumor did not surpass gallbladder. There is not enough information about the role of chemotherapy and radiotherapy in postoperative treatment in literature. Cisplatin, carboplatin, etoposide and paclitaxel are used for chemotherapy (8, 9). Besides, the analogues of somatostatin are used in the treatment of these cancers (10). We did not apply chemotherapy to our patient. In the post operative follow-up of the patient, no metastasis was found in thoracoabdominal tomography, in all body bone scintigraphy and positron emission tomography. Tumor indicators were found to

be normal. In 32 months of follow-up period, no local relapse or distant metastases was determined.

Although neuroendocrine carcinoma of the gallbladder is seen rarely, its prognosis is bad and has an aggressive progress. Primary treatment for it is surgery and the effectiveness of systemic treatment is not known completely. Besides, there is not enough data in literature on survival and continuing life without disease. In neuroendocrine carcinoma, large series is necessary to define natural progress and treatment.

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