A Duodenal Villous Adenoma Associated with Intramucosal Carcinoma

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Abstract

Primary tumors of the small intestine are uncommon. There is an increase in the frequency of villous and tubulovillous adenomas of the duodenum. This is likely to be caused by an increase in application of endoscopic examination for evaluating gastrointestinal complaints and for screening examination of patients with polyposis syndromes. Most frequently seen benign periampullary neoplasm is duodenum villous adenomas. As they have a 30-60% rate of malignant transformation, they are as considered to be premalignant lesions. They are usually located near the ampulla of Vater and cause symptoms such as biliary obstruction, pancreatitis, bleeding, duodenal obstruction. Pancreaticoduodenectomy remains the procedure of choice with invasive cancer. The appropriate treatment for those lesions that are benign or contain carcinoma in situ remains controversial. In these case we report a 69-year old woman, that the lesion is seen incidentaly while placing a percutaneous endoscopic gastrostomy due to swallowing disorder after cerebral operation. An endoscopic biopsy and pathological workup after local excision revealed high diferantiated intramucosal adenocarcinoma.

Keywords: Duodenum neoplasms, Villous adenoma, Local excision

İntramukozal Karsinomun Eşlik Ettiği Duodenum Villöz Adenomu

Öz

İnce bağırsak primer tümörleri nadir görülür. Villöz ve tübülovillöz duodenum adenomların görülme sıkılığı gastrointestinal şikâyetleri olan ve polipozis sendromlu olan hastalarda tarama muayenesi için üst gastrointestinal endoskopi kullanımının yaygınlaşması nedeniyle artış göstermiştir. Villöz duodenum adenomları, benign periampüller neoplazmlar arasında en yaygınlarıdır ve malignant dönüşüm oranı %30-60 arasında değişen premalign lezyonlar olarak kabul edilirler. Genellikle ampulla vateri yakınlarında olan konumları nedeniyle kanama, safra yolu tıkanıklığı, pankreatit, duodenal tıkanıklık ile karakterize edilen semptomlara neden olurlar. İnvaziv kanserlerde seçilen prosedür, pankreatikoduodenektomidir. Benign olan ya da karsinoma in situ içeren bu lezyonlarda uygun tedavi tartışılmaktadır. Bu vakada 69 yaşında, beyin ameliyatı sonrası gelişen yutkunma bozukluğu nedeniyle yapılan perkütan endoskopik gastrostomi esnasında lezyon tespit edilen bir hastanın sunumunu yapılacaktır. Endoskopik biyopsi ve ameliyat sonrası patolojik sonuç lezyonuın iyi diferansiye intramukozal adenokarsinom olduğunu göstermiştir.

Anahtar Kelimeler: Duodenum neoplazmları, Villöz adenom, Lokal eksizyon

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Introduction

Primary tumors of the small intestine are uncommon. The incidence rate of the disease is 1/10 in comparison to the same lesions in the colon (1, 2). Villous and tubulovillous adenomas of the duodenum have similar features with villous and tubulovillous adenomas of the colon and rectum in that they both have a high rate of recurrence after local treatment and a high malignancy incidence (1, 2). There is an increase in the frequency of villous and tubulovillous adenomas of the duodenum. This is likely to be caused by an increase in application of upper gastrointestinal endoscopy for evaluating gastrointestinal complaints of patients and for screening examination of patients with polyposis syndromes (2). It was Perry who first described the term in 1893 "broad-based, cauliflower-like mass" for which he used the term "duodenal papilloma" (3). Villous adenomas of the duodenum are the most frequently seen types of benign periampullary neoplasms. As they have a 30-60% rate of malignant transformation, they are as considered to be premalignant lesions (4). They are usually located near the ampulla of Vater which causes symptoms such as biliary obstruction, pancreatitis, bleeding, duodenal obstruction (5).

Pancreaticoduodenectomy remains the procedure of choice with invasive cancer. The appropriate treatment for those lesions that are benign or contain carcinoma in situ remains controversial (6). In these case we report a 69-year old woman, that the lesion is seen incidentaly while placing a percutaneous endoscopic gastrostomy due to swallowing disorder after cerebral operation. An endoscopic biopsy and pathological workup after local excision revealed high diferantiated intramucosal adenocarcinoma.

Case report

A 69 years old woman whose lesion is an incidental finding while placing a percutaneous endoscopic gastrostomy due to swallowing disorder after cerebral operation was referred to our general surgery clinic. She had no any signs and symptoms about this lesion and was operated for a cranial mass 2 months ago. There was no history of familial adenomatous polyposis (FAP) or colorectal carcinoma in first degree relatives.

Physical examination has no abnormal sign. Labarotory values were unremarkable except cancer antigen (CA) 19-9 which was 54,5 (referance value<39 U/mL). Abdominal ultrasound (US) showed dilatation of intrahepatic bile ducts (IHSY). Computed tomography (CT) revealed dilatation of IHSY and choledochus (10 mm), and a hypoechoic protruding lesion of 15 mm found in the wall of second part of the duodenum (Figure1).

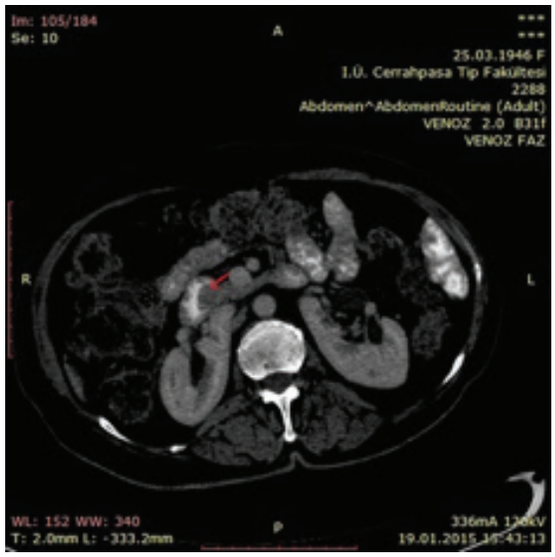

Figure1. Reflective marker was placed on the volunteer in an axial plane; hypoechoic protruding mass of 15 mm located in the wall of second part of the duodenum.

Esophagogastroduodenoscopy demonstrated a 2 cm vegetan mass that has irreguler borders on the second part of the duodenum, below the Vater's ampulla. The esophagus and stomach were normal. The pathological result of endoscopic biopsy of this lesion was high diferantiated intramucosal adenocarcinoma.

Due to general condition and history of the patient ampullary resection rather than whipple operation was scheduled. When the duodenum was opened the lesion was seen below the ampulla vater and it was mobile, superficial and seemed confined to mucosa so excision of the lesion + cholecystectomy + cholodocotomy + t-tube drenaj was done.

The patient had an uneventful recovery. Patient

was allowed oral sips on 5th and soft diet on 6th post op day, which was well tolerated. She was discharged on 10th post-op day and was called for follow up after 20 days for T-tube removal. The postoperative pathological diagnosis was also high diferantiated intramucosal adenocarcinoma located in the second part of duodenum. A written informed consent obtained from patient.

Discussion

Duodenal villous adenomas are uncommon and constitute approximately 1% of duodenum tumors (6). Perry first defined the term in 1893 "broad-based, cauliflower-like mass " for villous tumor of the duodenum (VTD) and VTD was firstly published in 1928 (1, 3).

Villous adenomas are the most frequent periampullary tumors and are thought as premalignant mass with a malignancy ratio as 30-60% (4). Hoyuela showed villous tumor has a 50% conversion to adenocarcinoma and Farnell et al. reported that villous adenomas have transformation of carcinoma in situ in 4% and invasive carcinoma in 22% of cases (7,8). Galandiuk explained the rate of malignancy as 47% (2).

According to tumor location, they cause biliary obstruction, pancreatitis, bleeding, obstruction of duodenum (late feature of large tumors), vague abdominal complaints, intussusception, or anemia because of chronic bleeding (5).

Mostly patients have not any disturbances there is no reguler sign and symtoms. The most proper examination is gastrointestinal endoscopy, which provide imaging and biopsy of the lesion.There can be benign and malign areas at the same time in the tumor; because of this preoperative biopsy has not certain results , for more accurate success lot's of biopsies must be taken (7). Also endoscopic retrograde cholangiopancreatography (ERCP), US, CT and endoscopic ultrasound (EUS) are helpful to identify and stage the tumor.

EUS has a 80-90 percent certainity to stage the ampullary tumor. EUS has been presented as standard method to stage superficial tumours that are available for local exicion of tumor (8). In our case, we did not have EUS because of inconveniences.

Villous tumor of the duodenum is the most frequent extracolic malignancy in patients with FAP and seen frequently in the cases of Gardner's syndrome and FAP (2, 4). In a recent studies only 21% of FAP patients vith duodenal adenomas had tubulovillous and villous adenomas. FAP patients must be followed with upper and lower gastrointestinal endoscopy. When duodenal adenomas are found, they must be taken for biopsy and routine endoscopic following is done once every six months (2).

Malignancy rate of VTD changes between 21% to 60% so adequate surgical treatment must be applied due to tumor's clinical and radiological conclusions. Various surgical resections can be used from simple local excision to pancreaticoduodenectomy (9). Surgical procedures are endoscopic excision, submucosal excision, segmental duodenal resection, and radical pancreaticoduodenectomy (8).

The surgery of VTD is optional and changes due to clinical presentation, labaratory and radiologic examinations, association with a polyposis syndrome, and laparatomy findings. Local excision has a short recovery period and low rate of complications, but it has a higher rate of recurrency (32% at 5 years, 43 % at 10 years). When VTD is resected by local excision, endoscopic follow-up must be done regularly.

Whipple (radical pancreaticoduodenectomy) decreases recurrence ratio and is suitable for patients who have high risk for malignant transformation to carcinoma. In patients with polyposis syndromes, whole duodenal mucosa has a risk for malignancy. Whipple procedure is essential for radical treatment of dysplastic duodenal mucosa (10,11).

Therefore whipple procdure is the optimal surgical method of choice for ampullary adenoma for patients in good general condition and with low morbidity factors. .

In elderly and high-risk patients local resection is an adequate choose for alternative treatment. Removal of these lesions from patients whose lesions are smaller may reduce the incidence of invasive carcinoma (9). Local resection of tumor is certainly a sufficient surgical procedure for patients with low stage ampullary tumors with good long-term

results and low morbidity and mortality rates (8).

Conclusion

As a result like in our case most of duodenum adenomas are seen incidentaly so we must be careful and thorough during esophagogastroduodenoscopy. The treatment of choice should be invidividualized considering the symptoms of presentation, the history and the general condition of the patient.

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