

Metastasis of Cervical Carcinoma to the Distal Biliary System

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Squamous cell carcinoma of the cervix is the most common form of cervical neoplasm. The more advanced the staging of SCCC at diagnosis, the higher the recurrence rate, which ranges from 10% to 70%. Most of the recurrences occur within 2 years after the initial treatment [1].

Blood-borne metastases are typically a late manifestation of the disease and may disseminate to almost any tissue of the body [2]. The common destinations of metastasis are the lung, bone, paraaortic nodes, abdominal cavity and supraclavicular nodes [1]. In a study of 278 autopsied cases of SCCC of various stages, the researchers assessed the influence of primary treatment on the incidence and distribution of recurrent disease and found 3.2% recurrence in the biliary system [3].

One-fifth of malignant biliary obstructions is a result of distant primary malignancies which metastasize to the pancreaticobiliary system [4]. Biliary stasis causing jaundice can occur due to obstruction of the small intrahepatic biliary ducts, parenchymal infiltration of the tumor cells, or compression of the larger extrahepatic ducts.

We report here a rare case of recurrent SCCC metastasizing to the ampulla

of Vater, causing obstructive jaundice as a presenting symptom.

PATIENT DESCRIPTION

An 81 year old woman presented to our institution in May 2005 with postmenopausal bleeding. Vaginal examination revealed a 4 cm tumor in the uterine cervix spreading to the anterior wall of the vagina. A biopsy from the uterine cervix demonstrated high grade, poorly differentiated non-keratinizing squamous cell solid carcinoma.

A computed tomography scan of the abdomen and pelvis, and further evaluation with positron emission tomography-CT identified local disease in the mid-pelvic area, with no evidence of metastasis. A clinical and radiographic evaluation of the patient demonstrated a stage IIA tumor as defined by the International Federation of Gynecology and Obstetrics. Radiotherapy treatment combined with cisplatin chemotherapy was given. The treatment was completed by December 2005. From April 2006 to September 2008, the patient was under routine periodic surveillance consisting of physical examination, ultrasound and PET-CT, with no evidence of disease.

In December 2008 the patient presented with jaundice and dark urine. Physical examination revealed a jaundiced woman with no abdominal tenderness. Laboratory data included serum total bilirubin levels of 6.2 mg/dl, direct bilirubin 3.3 mg/dl and alkaline phosphatase 403 U/L, gamma-glutamyltransferase 821 U/L. An abdominal ultrasound

demonstrated dilation of the extra- and intrahepatic bile ducts. The common bile duct was dilated up to its distal end, with no evidence of thickening.

The patient was diagnosed with clinical cholangitis and antibiotic treatment was initiated, followed by urgent papillotomy by endoscopic retrograde cholangiopancreatography. During the procedure purulent bile was drained, and because of the irregular and bulgy appearance of the papilla a biopsy was taken. The patient's clinical condition and her laboratory measurements normalized soon after the procedure. A CT scan of the abdomen and pelvis showed no evidence of a local mass. She was discharged with instructions for further evaluation by endoscopic ultrasound and duodenoscopy.

There were no unusual findings in the biliary duct on endoscopic ultrasound in January 2009 and the pancreatic tissue was normal. Duodenoscopy was performed soon after and a biopsy was taken from the ampulla of Vater. The biopsy showed infiltration of the papilla by squamous cell carcinoma [Figure].

PET-CT 2 months later (March 2009) demonstrated two new hypermetabolic lesions. The first was located in the epigastrium between the head of the pancreas and the duodenum, and the other was situated near the hilum of the right lung. The patient started chemotherapy treatment for disseminated recurrent cervical cancer.

COMMENT

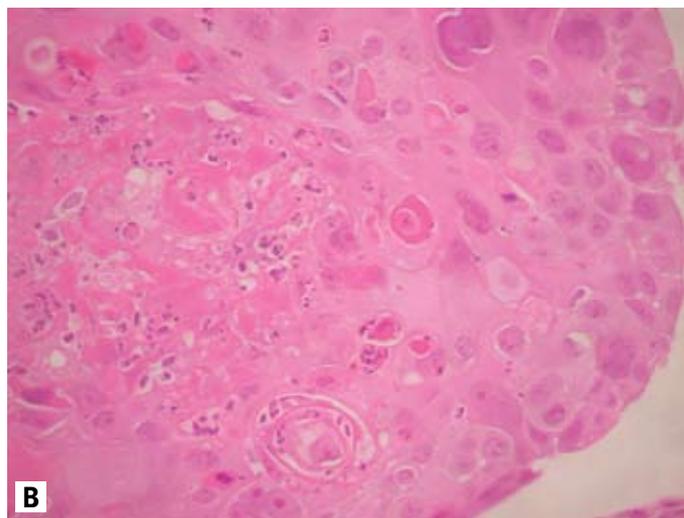
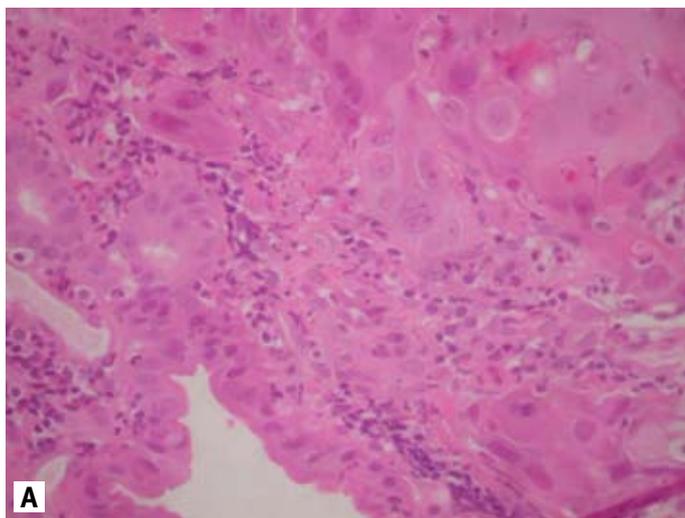
SCCC metastasis to the hepatobiliary tree is rare, with only five documented

SCCC = squamous cell carcinoma of the cervix

PET = positron emission tomography

Histology sections of the biopsy taken from the papilla of Vater. **[A]** Section showing normal columnar intestinal epithelial cells at the lower left margin with squamous tumor cells with large nuclei in the right upper part. This type of infiltration to the submucosal layer is consistent with lymphatic or

hematogenic spreading. **[B]** Section of the metastatic tumor. At the center of the specimen is an eosinophilic keratinized cell; this is a pathognomonic finding of SCC.



cases in the literature of obstructive jaundice [5]. In most of them the biliary strictures were located proximally, in the porta hepatic area. One of the patients presented with a distal obstruction of the common bile duct by a nearby malignant lymph node [5]. That was the only reported case, besides our own, in which the patient presented with ascending cholangitis.

This is the first reported case of SCCC metastases to the ampulla of Vater and the sixth case report of jaundice as the presenting symptom for recurrent SCCC. Comparison of this case to the previously published five known cases emphasizes several features. Our patient was older than the previously reported patients (age range 38–72 years). In those cases the time between the initial treatment and the appearance of jaun-

dice was 10 days to 32 months [5]. In our case the time interval was considerably longer, 42 months. Radiographic evidence of paraaortic lymph node involvement was observed in two of the five reported patients. In our case there was no evidence of paraaortic lymph node involvement according to the imaging studies (PET-CT).

Our case was a clear example of metastatic SCCC; we contend that in any case of a solitary squamous cell carcinoma in the biliary system, primary squamous cell carcinoma of the biliary tree should be considered. This is a rare tumor, with only five published cases, three of which involved the ampulla of Vater. Little is known about the preceding etiology; however, most reported cases have been associated with chronic biliary inflammation.

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“Reading, after a certain age, diverts the mind too much from its creative pursuits. Any man who reads too much and uses his own brain too little falls into lazy habits of thinking”

Albert Einstein (1879-1955)

“Probable impossibilities are to be preferred to improbable possibilities”

Aristotle (384-322 BC), Greek philosopher, a student of Plato and teacher of Alexander the Great. His writings cover many subjects, including physics, metaphysics, poetry, theater, music, logic, rhetoric, politics, government, ethics, biology and zoology. Together with Plato and Socrates (Plato’s teacher), Aristotle is one of the most important founding figures in Western philosophy.