Primary squamous cell carcinoma of the gallbladder is a rare form of cancer. (1,4) Risk factors most likely associated with squamous cell carcinoma are not clearly understood or delineated in the literature. The incidence rate has been shown to be higher in females than males and increases with age. (2) As to the origin of squamous cell carcinoma of the gallbladder, the most accepted hypothesis appears to be long-standing chronic inflammation or chronic irritation, producing squamous metaplasia or squamous cell differentiation of pre-existing adenocarcinoma. (2,5)

In the entire spectrum of gallbladder cancer, squamous cell and adenosquamous cell carcinoma account for 12% of the cases, out of which only 3% of carcinomas are pure squamous cell carcinomas. (2,7) Here we present a case of pure squamous cell carcinoma involving intra- and extrahepatic bile ducts, with metastasis to the liver. The etiology of squamous cell carcinoma of the gallbladder is not clearly understood. (2) Various hypotheses have been reported in the literature as possible etiologies for squamous cell carcinoma of the gallbladder, including malignant transformation of heterotopic squamous epithelium, malignant transformation of metaplastic squamous epithelium, and squamous metaplasia of adenocarcinoma. (2,6) The most prevalent hypothesis is that the squamous cells seen in squamous cell carcinoma of the gallbladder arise from squamous metaplasia, or squamous cell differentiation of pre-existing adenocarcinoma. (2,5)

From among these hypotheses, we may conclude that squamous cell carcinoma develops from pre-existing adenocarcinoma, which undergoes squamous metaplasia and forms adenosquamous carcinoma, in turn leading to pure squamous cell carcinoma by replacing the adenocarcinoma portion and thus transforming into pure squamous cell carcinoma. According to this explanation, risk factors associated with adenocarcinoma of the gallbladder would be potential risk factors for squamous cell cancers as well, including cholelithiasis, intrahepatic lithiasis, Caroli’s disease, liver fluke (Clonorchis sinensis) infection, opisthorchis viverrini, biliary atresia, choledochal cyst, ascariasis and primary sclerosing cholangitis. Also included would be carcinogens such as thorotrace, oxymethalone and nitrosamines. Among the reported cases of squamous cell carcinoma of the gallbladder, the majority of cases have been found to be associated with gallstones. There has been no clear documentation of smoking as a potential causative factor.

In the case of squamous cell carcinoma of the gallbladder, tumor is locally invasive with a low probability of lymphatic or hematogenous metastasis. (1,2,6) Such tumors have a propensity for growing laterally along the fossa of the gallbladder forming large infiltrative masses and invasion of the liver and adjacent organs including stomach, duodenum and transverse colon. (4,5) As compared to adenocarcinoma, liver metastasis is more commonly associated with squamous cell carcinoma of the gallbladder. (3,4) Our case was notable for local tumor invasion of the intra- and extra-hepatic bile ducts with extensive liver involvement without any lymphatic or hematogenous metastasis.

The usual presentation is with obstructive jaundice, weight loss and right upper quadrant discomfort. Hepatic cirrhosis may be present. Squamous cell tumors behave aggressively and have a worse prognosis than adenocarcinomas. (2,4,5)

With regard to therapy, surgical intervention depends on the extent of the carcinoma. For early cancers, surgery consists of cholecystectomy with resection of a wedge of adjacent liver tissue or direct liver resection. (1,2,6) Adjuvant chemotherapy and radiotherapy have not shown consistent results. For advanced disease, chemotherapy and radiotherapy are used mainly for palliative purposes. (5) It is important to diagnose squamous cell carcinoma during its early stages when surgical intervention may be feasible. Unfortunately, squamous cell cancers of the gallbladder are more commonly found at an advanced stage when only palliative measures may provide benefit. (2,4) The 5-year survival rate is reported to be less than 10% (1,2,7)

References:
New Jersey’s 2014 Top Docs – 115 are from HackensackUMC Mountainside


Recent Headlines in Cancer Publications

1. FDA approves DNA stool test for colon cancer.
2. Regular aspirin use reduced risk for pancreatic cancer.
3. Bariatric surgery associated with long-term risk for colorectal cancer but reduced risk for uterine cancer by 71%.
4. Endoscopic surveillance for Barrett’s esophagus does not improve cancer survival.
5. Intraperitoneal chemotherapy underused in ovarian cancer – a treatment associated with major survival benefit.
6. Gastric cancer-specific stem cell that causes gastric cancer identified.

Tina Palermo has been an employee since 1989! This June she will celebrate her 25th year at our Hospital. During her length of service, Tina married Anthony Palermo and together shared in the birth of their children Anthony and Kristen. Tina began working in the staffing office, as an administrative assistant/staffer, using her excellent telephone skills, she is able to call in staff and make schedules changes routinely. Tina also had to learn payroll and worked in that function for a time. Payroll experience has made her an excellent resource to the staff with payroll questions. Recently Tina made the big jump to Full Time and became the Receptionist for Nursing Administration. Tina has already made suggestions to improve some of the ways we keep reports or communicate within the department. In her current position, she is responsible for greeting staff and guests, answering telephones, ordering supplies, keeping records, scheduling meetings, maintaining reports and assisting Managers wherever possible. Tina does all this with a smile and friendly greeting. She is known for always saying “you are very welcome” for the many thanks she receives. Tina is a great listener, she has great skills for “hearing” and compassionate to everyone who confides in her.