Clinical Case
A 19 year old female was evaluated for loose stools of several years duration. Lab work revealed a normal hematocrit, c-reactive protein, albumin, and erythrocyte sedimentation rate. Stool studies were negative for infection. A colonoscopy found severe pancolitis consistent with ulcerative colitis (UC). Systemic steroids and a 5-aminosalicylic acid derivative were initiated. Repeat colonoscopy 6 months later was significant for a carpet like lesion at 25 cm from the anal verge in an otherwise normal appearing colon. Biopsies contained low grade dysplasia within the lesion and the surrounding mucosa, consistent with a dysplasia associated non-adenoma like lesion or mass (DALM). The patient underwent a total proctocolectomy with J pouch formation and ileoanal anastomosis. Upon follow up she was doing well.

Introduction
In inflammatory bowel disease (IBD), dysplasia is defined as unequivocal neoplastic epithelium that is confined to the basement membrane without invasion into the lamina propria. The rate at which colitic mucosa progresses to dysplasia, and ultimately to colorectal cancer (CRC) is unknown. Neoplastic progression is believed to occur in a stepwise fashion from inflammation without dysplasia to indefinite for dysplasia to low grade dysplasia to high grade dysplasia to cancer. The molecular biology of cancer in IBD is unique in that the accumulation of molecular and genetic alterations may occur more rapidly or in an unconventional sequence when compared to sporadic CRC.

Epidemiology
The duration and extent of colitis, early age of onset of colitis, family history of CRC, coexistent primary sclerosing cholangitis, and severity of microscopic inflammation are risk factors for the development of cancer in UC. Elevated lesions that are endoscopically visible, but not amenable to endoscopic resection are referred to as dysplasia associated lesion or mass (DALM). In a series of 12 patients with a DALM who underwent colectomy, 7 were found to have invasive carcinoma. The average duration of colitis is 20 years prior to the development of dysplasia. However, one in 8 patients with UC will have dysplasia or cancer found on their initial screening colonoscopy. Patients with greater than 10 years of disease and those with extensive disease (pancolitis) are at highest risk for cancer. The incidence rate increases with each successive decade of disease activity, with cumulative probabilities of 2% at 10 years, 8% at 20 years, and 18% at 30 years. More recent data suggests that the risk may be on the decline with 0.6% after 10 years, 5.4% after 20 years, and 7.5% after 30 years of chronic UC.

Management
Periodic surveillance colonoscopy is the foundation of cancer prevention in IBD. This approach relies on the ability to detect CRC at a preclinical phase of dysplasia. Guidelines published by the Crohn’s and Colitis Foundation of America suggest an initial screening colonoscopy be performed in all UC patients 8-10 years after onset of symptoms attributable to IBD. Patients with an initial exam negative for dysplasia with left sided and extensive colitis should receive surveillance colonoscopies every 1-2 years. Rubin et al. determined that 64 biopsies throughout the colon on surveillance exams are needed to achieve 95% sensitivity.

High grade dysplasia carries a 43% chance of a concurrent malignancy and is an indication for immediate colectomy. Similarly, DALMs are associated with a high rate of CRC and also an indication for total proctocolectomy. In contrast, adenoma-like lesions can be managed endoscopically provided that biopsies of the surrounding mucosa are free of dysplasia. Thereafter a regimen of more frequent surveillance colonoscopy is recommended. Management of low grade dysplasia remains a subject of debate among experts without clear guidelines on optimal management. Findings of indefinite dysplasia should prompt more frequent surveillance with a repeat colonoscopy in 3-6 months.

Conclusion
We present a case of UC with findings of a DALM that led to proctocolectomy only 6 months after the diagnosis of pancolitis in a 19 year old patient. This presentation of a DALM is unusual because of the short duration of known UC and the patient’s young age.

Cancer in UC appears to result from the combined effects of chronic inflammation, and an underlying genetic predisposition. Severity of inflammation is currently the only modifiable risk factor. Therefore, aggressive medical therapy to mitigate inflammation coupled with close endoscopic surveillance remain the current approach to detect pre-cancerous lesions and prevent cancer in IBD.

Legend: Biopsy of the sigmoid colon revealed high grade dysplasia in the setting of ulcerative colitis.