Appendiceal Mucinous Neoplasm Appearance on NBI Colonoscopy

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A 71-year-old woman presented to the general physician with recent weight loss and uncertain pain located to the right inguinal region, starting 8 weeks before. She did not report fever or change in the bowel habits. There was no familial history of colon polyps, cancer or inflammatory bowel diseases. Physical examination and laboratory tests excluded an acute disease. C-reactive protein (CRP) was slightly elevated (2.6 mg/l), leukocyte number and hemoglobin level were in normal range. Abdominal ultrasonography was negative. Because of a fecal blood test positivity, the patient was referred to the Gastroenterology Department for a colonoscopy. Colonoscopy revealed a polypoid, edematous lesion at the base of the coecum, abutting and extending into the appendiceal orifice with regular pit pattern on the surface (Fig. 1). During biopsy acquisition a purulent/mucinous discharge from the appendiceal orifice was noted (Fig. 2). No other abnormalities were found in the colon. Control blood test obtained immediately after colonoscopy showed leukocytosis, but not CRP elevation. Abdominal/pelvic CT imaging reported appendicolithiasis with focal thickening and obstructive dilatation of the appendix (Supplementary file). After referring the patient to the Surgical Department, urgent appendectomy and coecum resection were performed. Histology depicted few areas of a slit-like mucinous neoplasia with neutrophilic granulocytic infiltration with massive acute inflammatory infiltration, not reaching the subserosa, suggestive for a low-grade appendiceal mucinous neoplasm (AMN) (Fig. 3, H&E, 200x). Peritoneal mucinous - pseudomyxoma-like image was not identified.

The diagnosis of acute appendicitis is predominantly based on typical clinical features usually confirmed by laboratory or radiological findings [1]. However, few case-reports have described silent appendicitis diagnosed via endoscopy [2-4]. According to our knowledge, there is no previous report on AMN suspected at endoscopy. However, leakage after targeted biopsy can be diagnostic for either inflammation or AMN. Older age

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could predispose to silent appendicitis, and in such uncertain cases an underlying malignancy should be considered.

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