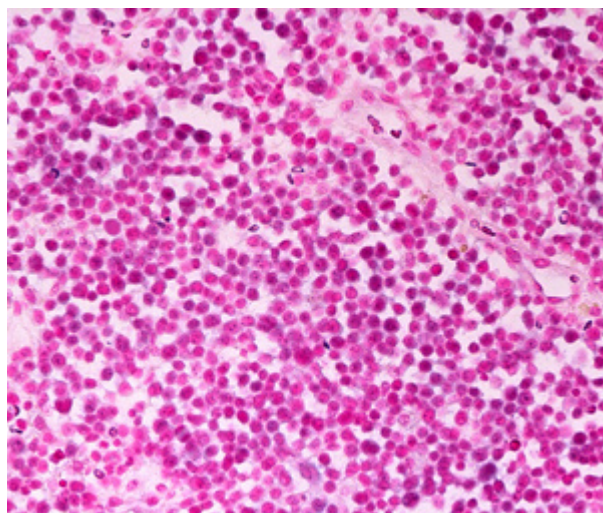
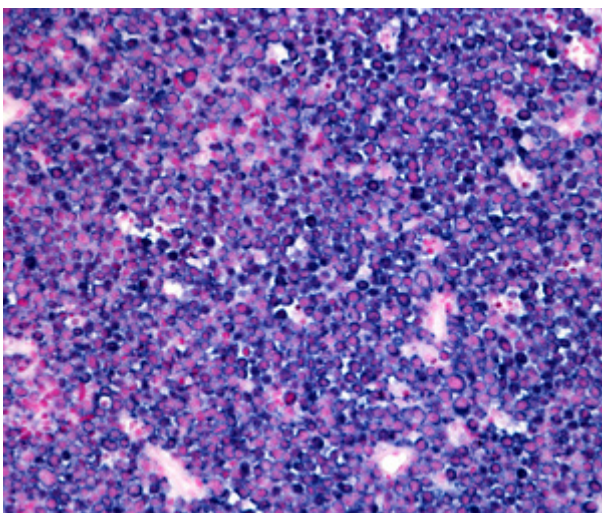
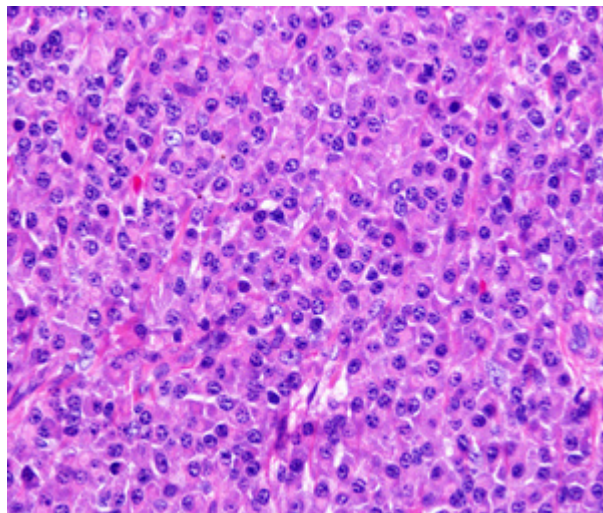
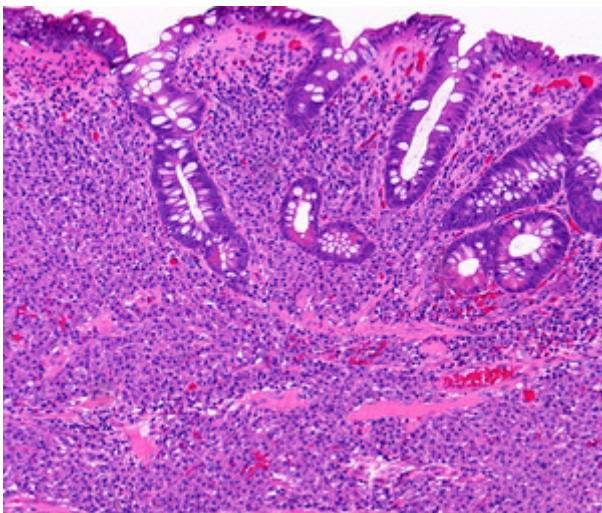
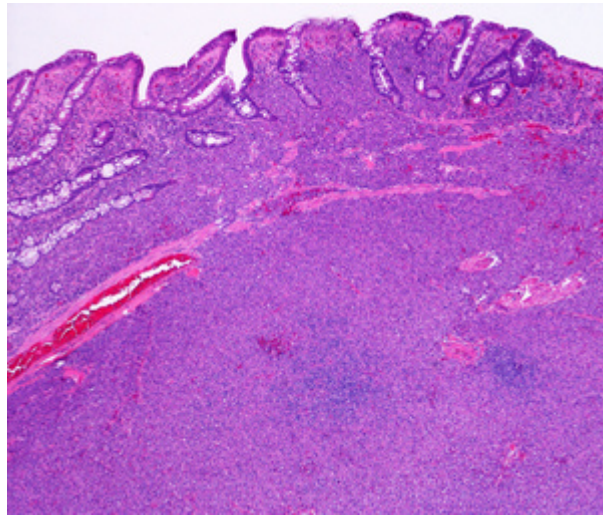
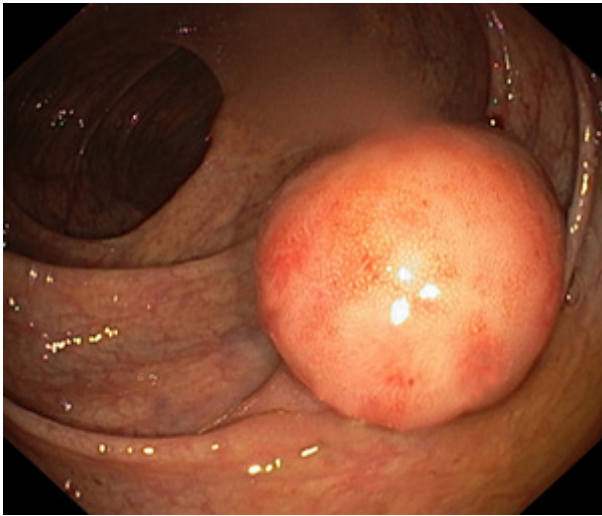


November 2017

A 70-year-old male with a solitary polyp in the ascending colon.

What is your diagnosis?



Diagnosis:

Extrasosseus (extramedullary) plasmacytoma of the colon.

Comment:

A 70-year-old man had a screening colonoscopy and a solitary polyp in the ascending colon was found and excised. The removed polyp was round, measuring 2.6 cm in diameter, covered by intact mucosa (Panel A). Microscopically, there was infiltration of the lamina propria and submucosa with differentiated plasma cells (Panels B-D). In situ hybridization showed lambda light chain in the plasma cells (Panel E), whereas kappa light chain was not expressed (Panel F), suggesting the clonal nature of plasma cells. No evidence of a plasma cell myeloma was found on further examination confirming the diagnosis of extramedullary plasmacytoma.

Extrasosseus (extramedullary) plasmacytoma (EP) is a localized clonal proliferation of plasma cells arising in tissues other than the bone. By definition, there is no evidence of plasma cell myeloma on bone marrow examination or by radiography. Microscopically, it consists of plasma cells which can be well- or poorly-differentiated. They may contain Russel bodies or grape-like inclusions of retained immunoglobulin (Mott cells), which do not help to distinguish reactive plasma cells from neoplastic ones. Immunohistochemically, plasma cells usually express CD79a, CD138, CD38 and MUM-1. They occasionally express cyclin D1 and CD56, particularly in multiple myeloma.

Well-differentiated plasmacytoma cannot be distinguished morphologically from reactive (polyclonal) plasma cell proliferation. Neoplastic (monoclonal) nature of plasma cells can be proven by demonstrating immunoglobulin light chain restriction by in situ hybridization or flow cytometry. Differential diagnosis in poorly-differentiated plasmacytoma includes malignant lymphoma, carcinoma and melanoma. Immunohistochemistry must be used in such cases to demonstrate plasma cell antigens.

EP occurs most commonly in the upper aerodigestive tract, particularly in the oropharynx and nasal cavity. Gastrointestinal tract is a rare location, accounting for approximately 10% of EPs. The small intestine is the most common GI site, followed by the stomach, colon and oesophagus.

Prognosis of EP is favorable. Complete eradication can be achieved by surgery or irradiation. In some patients, there is local recurrence or spread to the regional lymph nodes. The development of plasma cell myeloma may occur in about 15% of patients with EP.

For further reading:

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- › Thumallapally N, Meshref A, Mousa M, Terjanian T. Solitary plasmacytoma: population-based analysis of survival trends and effect of various treatment modalities in the USA. *BMC Cancer.* 2017; 17:13.
- › George SM, Aljufairi EA, Chandran N, Almahari SAI. Plasmacytoma as a mimicker of colonic carcinoma in an elderly man. *Case Rep Pathol.* 2017; 4846018.

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