Malignant hemangiopericytoma of the rectum

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A rare case of malignant hemangiopericytoma of the rectum in an 89-year-old female, which developed 10 years after chemotherapy treatment for recurrent right breast carcinoma, is described. The patient presented with lower gastrointestinal bleeding and was found to have a rectal polyp. To our knowledge this represents the second case report of this condition. The role of chemotherapy is discussed.

CASE PRESENTATION

An 89-year-old female patient presented with lower gastrointestinal bleeding for two months associated with lower abdominal discomfort. Physical examination revealed a rectal polyp which was resected. Past medical history included right mastectomy for breast carcinoma in 1977 followed by local recurrence in 1978. The patient received local radiotherapy and hormonal treatment, followed by several courses of chemotherapy for the past 10 years. Her course of treatment was complicated by episodes of leucopenia and thrombocytopenia. Recently, she developed congestive heart failure with...
massive pleural effusion and died with no post mortem examination.

**PATHOLOGICAL FINDINGS**

The specimen consisted of a resected egg-shaped polyp (3.5x2x2 cm) with a white firm cut surface. Microscopic examination revealed a highly cellular, tightly packed, oval to spindle shaped cell tumour (Figure 1) with round nuclei and prominent nucleoli. Mitoses averaging two to five per 10 high power microscopic fields (x40) were seen. The tumour was characterized by abundant branching capillaries lined by flat endothelium (Figure 2). The tumour cells intimately surrounded the vessels but were separated from the latter by a thin sheath of reticulin (Figure 3).

Immunohistochemical stains were performed on paraffin embedded sections using the avidin biotin complex technique for visualization of antibody binding. The following markers were used: epithelial membrane antigen, S100 protein, vimentin, actin, myosin and neuron specific enolase. The tumour cells were positive for vimentin antisera (Dako) (Figure 4) and focally for S100 protein (Dako); they reacted negative for all other markers. Electron microscopic examination show ovoid nuclei and pale cytoplasm with few rough endoplasmic reticulum, pinocytotic vesicles, mitochondria and occasional myofibrils and discontinuous basal lamina.

**DISCUSSION**

Hemangiopericytoma is a rare tumour arising from the pericytes of Zimmermann, which are primitive mesenchymal cells closely associated with capillary endothelial cells (4). Hemangiopericytoma usually involves the soft tissue, predominately in the lower extremities, pelvis and retroperitoneum. It appears to have no predilection for sex or age (5).

Hemangiopericytomas have been noted to arise from all levels of the gastrointestinal tract, stomach (2) and small bowel (3) being the most common sites. Isolated cases have been reported in the esophagus, colon and rectum (1) but these are very rare and, to our knowledge, only one case has been reported in the rectum (6).

Intestinal hemangiopericytoma may present with signs and symptoms of obstruction, intussusception and bleeding (3). Hemangiopericytoma of liver may be associated with hypoglycemia (7). This case, developing in an 89-year-old female almost 10 years after chemotherapy for recurrent breast cancer, is the second report of hemangiopericytoma involving the rectum. The ne-
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REFERENCES

ACKNOWLEDGMENT: We thank Mrs J Breau for typing the manuscript.