

Colonic Metastasis from a Squamous Cell Carcinoma of the Cervix Presented with Intestinal Obstruction

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Abstract- In patients with advanced squamous cell carcinoma (SCC) of the uterine cervix treated by radiation, 9-27% may develop distant metastasis. Common sites of distant metastasis are lungs, bones and para-aortic lymph nodes. Metastasis to the colon is very rare. We report a case of a 62 year old lady who was treated by Wertheim hysterectomy and adjuvant radiotherapy for stage III carcinoma of the uterine cervix. Three years later, she developed a metastatic growth in the transverse colon which was resected. It is important to differentiate squamous cell carcinoma metastasizing to the colon from a primary squamous cell carcinoma of the colon as latter has a better prognosis. Palliative resection of the colonic metastasis prevent further dissemination.

Index Terms- Carcinoma cervix, Colon, Metastasis, Squamous cell carcinoma

I. INTRODUCTION

Distant metastasis from carcinoma of the uterine cervix is reported in 9%- 27% of patients who were treated by radiation [1]. Frequently observed sites were lungs (21%), para-aortic lymph nodes (11%), abdominal cavity (8%), and supraclavicular lymph nodes (7%) [3]. Bone metastases occur in 16% of patients, commonly to the lumbar and thoracic vertebrae [3].

Metastasis to the gastrointestinal tract is rare and metastasis in to the colon is even rare [1,2].

We report a case of squamous cell carcinoma of the cervix metastasizing to the transverse colon and compared its histopathological features with that of a primary squamous cell carcinoma of the colon.

II. CASE REPORT

A 62 year old female was admitted to the emergency unit of Teaching Hospital, Kandy with history suggestive of intestinal obstruction. On Clinical examination she was dehydrated and had distended abdomen with exaggerated bowel sounds. Abdominal x-ray showed air fluid levels suggestive of intestinal obstruction.

The patient had been previously diagnosed as having a stage III carcinoma of cervix. Histological diagnosis was a keratinizing

moderately differentiated SCC of cervix. In January 2010 she underwent total abdominal hysterectomy with bi lateral salphingo-oophorectomy and pelvic lymph node resection followed by adjuvant radiotherapy in March 2010. She was disease free during the subsequent follow up.

After a lapse of 3 years, she experienced altered bowel habits, with pain in the left hypochondrium. Two weeks prior to this presentation she underwent a colonoscopy and found to have a circumferential mass narrowing the lumen near the splenic flexure. The biopsy revealed a G2 squamous cell carcinoma. There was no evidence of synchronous lesions, polyposis syndromes or inflammatory bowel disease.

An exploratory laparotomy for acute intestinal obstruction performed, revealed a solitary hard, lump at the distal transverse colon, measuring 4 cm × 5 cm infiltrating to mesocolon and gastrocolic ligaments. There were multiple enlarged para aortic lymph nodes with significant amount of adhesions. The bowel segment containing the tumor was resected with adequate margins. A transverse colostomy was performed as a damage control procedure. Histopathological examination revealed a squamous cell carcinoma (Non Keratinised) which was arranged in large nests and present within the sub mucosa and muscularis propria. [figure1] There was no serosal or mucosal involvement by the tumour suggesting that it is most probably a metastatic tumour from the SCC of the cervix. The patient was referred to the oncologist for further management.

III. DISCUSSION

The incidence of distant metastasis in stage III carcinoma of the cervix is around 35%- 39% [2], the most common sites being the lungs, bones and para aortic lymph nodes[1,3]. Metastasis to the gastrointestinal tract is extremely uncommon.

Colonic metastasis have been reported from primary cancers of organs such as breast, cervix, kidney, ovary, and malignant melanomas [4-6]. Metastasis to the colon from any malignancy can occur through Transcelomic, Hematogenous, Retrograde lymphatic or Transluminal passages [1]. Most reports of secondary tumors in the transverse colon metastasized in the form of peritoneal seedlings.

In our case, since the serosa was uninvolved and there were no other peritoneal metastasis, the mode of spread is most likely to be through the lymphatic system.

Macroscopically, the tumor may either present as a mesenteric mass invading the bowel or as an intramural mass ulcerating into the bowel. However, in this patient, the mucosa appeared to be intact and the bulk of the tumor was intramurally placed, narrowing the lumen.

Secondary squamous cell carcinoma of the colon needs to be differentiated from a primary squamous carcinoma arising in the colon since the former has a poor prognosis.

The pathogenesis of primary SCC of the colon is unclear due to its rarity. In 1979, Williams *et al.*, proposed three criteria for primary SCC of the colon namely a. metastasis from other sites must be excluded; b. Squamous epithelial lined fistulous tract must not involve the affected bowel because it may be a source of SCC; and c. SCC of the anus with proximal extension must be excluded.[4]

None of the criteria are fulfilled by our patient to diagnose possible primary squamous cell carcinoma. With the past history of squamous cell carcinoma of the cervix this tumour is most likely a metastasis from the cervical cancer.

Primary squamous cell carcinoma of the colon is also known to be associated with the presence of carcinoma in situ, squamous metaplasia in the adjacent mucosa, other synchronous colonic malignancies, adenomatous polyps or ulcerative colitis [1,7].

In our patient, there was no associated squamous metaplasia. Colonoscopy done two weeks prior did not reveal any of the above. In primary squamous cell carcinoma of the colon, malignant squamous cells arise in the mucosa and infiltrate transmurally with areas of squamous metaplasia or squamous carcinoma in situ in the adjacent mucosa [7]. Conversely, this patient with metastatic squamous carcinoma had islands of malignant squamous cells predominantly in the sub mucosa with occasional focal infiltration into the mucosa without associated squamous metaplasia. History of carcinoma of the cervix along with these features directs towards the metastatic nature of the colonic lesion. In the absence of clinical evidence of other metastatic deposits and apparently well after the treatment of the primary lesion, hematogenous spread is unlikely in our case, though the possibility of retrograde lymphatic permeation could only be evaluated by lymphangiography. But, in this patient the presence of lymph nodal enlargement suggests that lymphatic spread is likely.

Early detection with prompt intervention is the key factor required in the successful management of the secondary tumors and to improve the overall survival of the patient.

Metastasis to the colon from carcinoma cervix should be treated aggressively as the patient can remain disease-free for a long time. Our patient achieved good palliation after surgery, and remained disease-free till now. An emergency laparotomy saved her from

Possible future complications of intestinal obstruction such as intestinal perforation, which could have been fatal.

Figure 1: High power view of metastasis from the squamous cell carcinoma in the sub mucosa of the colon.

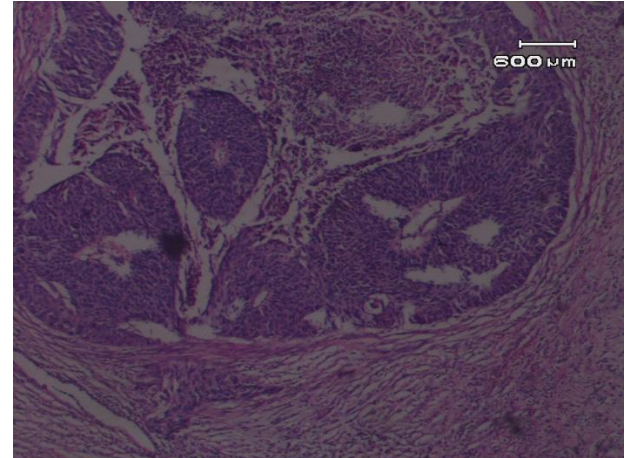
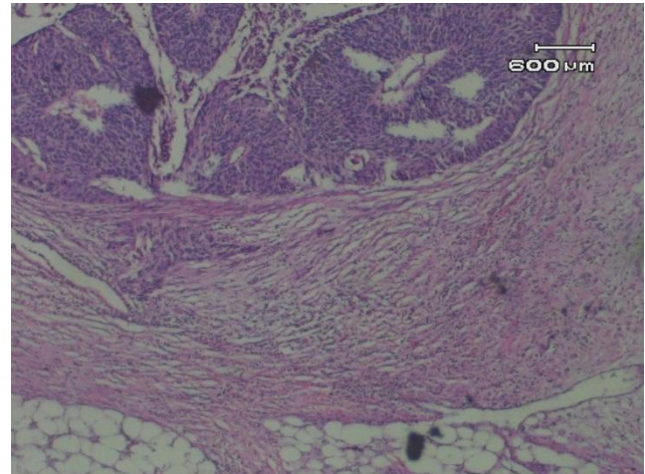


Figure 2: High power view of metastasis from the squamous cell carcinoma in the sub mucosa of the colon with vascular embolus



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