COLLISION COLORECTAL ADENOCARCINOMA AND HODGKIN LYMPHOMA: A CASE REPORT.

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ABSTRACT

Collision cancers of the gastrointestinal tract involving lymphomas are very rare. We report a case of collision cancer involving a well differentiated colonic adenocarcinoma and corresponding mesenteric Hodgkin lymphoma. The sentinel lymph node shows metastatic adenocarcinoma however, lymph nodes further away within the mesentery revealed mixed cellularity Hodgkin lymphoma. We want to emphasise that collision adenocarcinoma and Hodgkin lymphoma especially of the mesenteric lymph nodes is a very rare event.

KEYWORDS : Hodgkin lymphoma, Adenocarcinoma, Colon, Mesenteric lymph nodes, Collision.

INTRODUCTION

Collision cancers are defined as malignant neoplasms that occur simultaneously within a period of not more than six months and must be distinct enough that no possibility of one being the metastasis of the other cancer[1]. Hodgkin lymphoma does not commonly affect mesenteric lymph nodes (<5%) and its most frequent presentation is asymptomatic supraclavicular lymphadenopathy with or without symptoms[2]. Colorectal cancer is however the third most commonly diagnosed cancer in males and females and the rate of synchrony with lymphoma is estimated at 2%[3]. Coexistence of colonic adenocarcinoma and Hodgkin lymphoma in the same patient is rare and even rarer is occurrence in the same anatomical region[3]. We therefore describe here a patient with primary diagnosis of sigmoid colon adenocarcinoma and incidentally found to have Hodgkin lymphoma that involved mesenteric lymph nodes of the specimen removed.

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CASE REPORT

A 26-year old Nigerian male presented with a recent history of rectal bleeding and mass that was initially reducible but subsequently irreducible. On examination he was well looking but had external haemorrhoids at 12, 5 and 9 o'clock positions. His base line haematological and biochemical investigations were normal. CT scan of the abdomen revealed an iso-dense heterogeneously enhancing mass measuring 4.5x3.4cm in the region of the rectum inseparable from the posterior bladder margin. He had examination under anaesthesia (EUA) and a mass 10cm from the anal verge was found and a biopsy was taken which on histological examination revealed a well differentiated adenocarcinoma. He subsequently had anterior resection of the rectum. Intraoperatively, the mass had involved the posterior bladder wall and seminal vesicles with paracolic and para-aortic lymphadenopathy. The histopathology Department received a 12 cm segment of recto-

sigmoid colon with a mass bearing portion measuring 8x4x4 cm along with 13 lymph nodes. Histologically the mass was a well differentiated adenocarcinoma and 5 of the 13 lymph nodes revealed mixed cellularity Hodgkin lymphoma. There were metastatic deposits in 3 sentinel lymph nodes. Post-operatively the patient did well and had six courses of chemotherapy using Leucovorin, 5 Fluorouracil and Oxaliplatin for the dominant cancer (Adenonocarcinoma). He had been on follow-up since then and was last seen on 28/4/2014 with no complains.

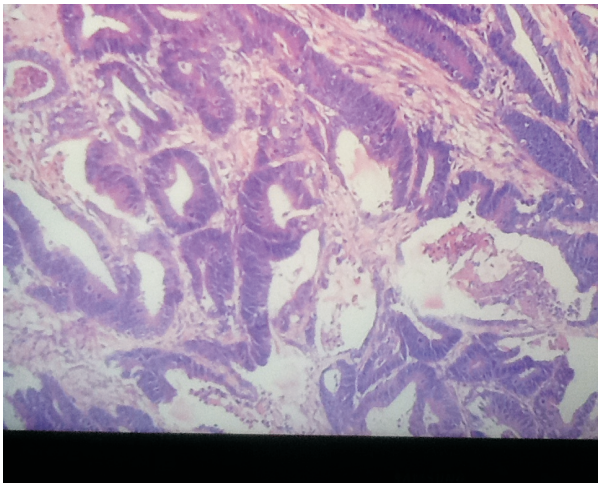

Figure 1: Well differentiated adenocarcinoma from the colonic mass.

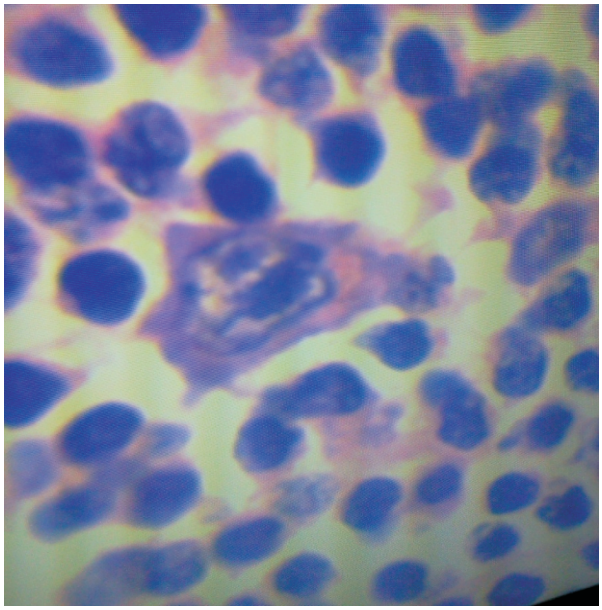

Figure 2: Classical Reed-Sternberg cell in an inflammatory background composed of plasma cells, polymorphs and lymphocytes from the mesenteric lymph nodes.

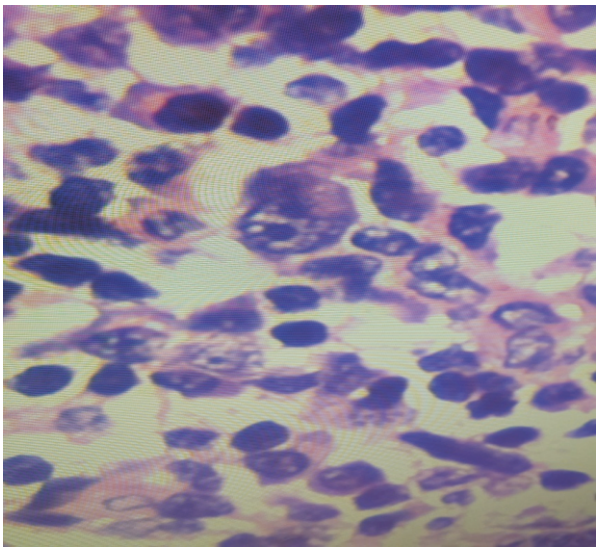

Figure 3: Hodgkin cell in an inflammatory background composed of plasma cells, polymorphs and lymphocytes from the mesenteric lymph nodes.

DISCUSSION

Collision cancers are uncommon and even more uncommonly found in the same anatomical region[3]. Further rare is also the primary occurrence of Hodgkin lymphoma in the mesenteric lymph nodes[4]. This happens in less than 5% of cases[4]. The most common site for involvement by Hodgkin lymphoma is supraclavicular region with or without symptoms[2]. Our patient had a combination of two cancers in the same anatomical region in the form of rectal adenocarcinoma and mesenteric lymph node Hodgkin lymphoma. The probability of having Hodgkin lymphoma coexisting with colonic adenocarcinoma is estimated to be 2%[3]. There have been literature reports of Hodgkin lymphoma and gastrointestinal carcinoma as either synchronous or metachronous coexistence[5,6]. As at 2012, 13 cases of synchronous colonic adenocarcinoma and malignant lymphoma were said to have been reported in the literature[7]. These cases were non-Hodgkin lymphoma with mantle cell lymphoma accounting for 5 of the 13 cases[7]. Two cases of synchronous Hodgkin lymphoma and colonic adenocarcinoma were reported in 2004 and 2009 respectively and were not among the 13 cases reported[8].

Our patient had an earlier histological diagnosis of a rectal adenocarcinoma (Figure 1). He had anterior resection of the rectum and the mass was further confirmed to be an adenocarcinoma. However, of the 13 lymph nodes dissected, three of them showed metastatic adenocarcinoma while five of those further away showed mixed cellularity Hodgkin lymphoma (Figure 2 & 3). Some factors and mechanisms have been proposed to be responsible for synchronous colonic carcinoma and lymphoma. Such factors include viral agents, immune abnormalities and the genetic make-up of the patients[7].

The overall prognosis of patients with collision lymphoma and carcinoma of the gastrointestinal tract is not available due to absence of long term follow-up but it is said to be generally dependent on the carcinoma as the lymphomas are usually of low grade or stage for non-Hodgkin and Hodgkin lymphoma respectively[9].

CONCLUSION

Multiple malignant neoplasms in the same patient are an important consideration in the treatment of patients with adenocarcinoma. The appropriate use of sensitive staging modalities makes the discovery of synchronous cancer a distinct possibility. The detection of concurrent cancer changes the modalities of treatment which will now depend on the dominant cancer (histological malignancy and stage of the dominant cancer) to maximise any chance of cure or cancer control. ▬

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