International Journal of Pharmaceutical Research and Applications
Volume 8, Issue 5 Sep-Oct 2023, pp: 36-38www.ijprajournal.com ISSN: 2249-7781

Malignant Melanoma of Anorectal Region: A Rare Case

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Submitted: 01-09-2023 Accepted: 11-09-2023

ABSTRACT:
Adenocarcinomas and squamous cell carcinomas are the most common malignancy of colorectal and anal region. Other rarer histological types of malignancies of the colon, rectum and anus also occur that include lymphoma, melanoma, diffuse cavernous hemangioma, and sarcomas such as leiomyosarcoma or Kaposi's sarcoma.[1] Malignant melanoma is an extremely rare disease, presenting in fifth and sixth decade of life, seen predominantly in females.[2] Rectal bleeding being the most common symptom, it is often misdiagnosed as hemorrhoids or benign polyps. Wide local resection, abdominoperineal resection and endoscopic mucosal removal are the main stay of treatment.[1,4] We present here a case of 78 years old male diagnosed as malignant melanoma of anal canal.

Keywords: Anorectal melanoma, HMB-45, Abdomino-perineal resection

I. INTRODUCTION:

Anorectal malignant melanoma(ARMM) is rare and aggressive disease which metastasizes very frequently. After skin and retina, anorectum is the third most common location of malignant melanoma. This entity constitutes only 0.5-4% of all anorectal malignancies and less than 1% of all melanomas.[3] Approximately 20–30% of ARMMs are amelanotic, can endoscopically resemble benign polypoid lesions.[5] It is found more commonly in women particularly in fifth and sixth decade of life. The initial diagnosis is difficult because it presents most commonly with rectal bleeding which is often misdiagnosed as hemorrhoids in 80% of cases.[2]It is resistant to radiotherapy, chemotherapy and even surgical resection (i.e. wide local excision and abdominoperineal resection) is also controversial favoring bad prognosis. The five year survival rate is found to be <20% after the initial diagnosis.[4] The target therapy and anti-angiogenic therapy has also been used recently.[6]

II. CASE REPORT:

A 78 yrs old male presented to surgery OPD with complaintof alteration of bowel habits and bleeding per rectum for 5-6 months alongwith history of loss of weight and loss of apetite for 1 month. There was no relevant past history or family history of colonic carcinoma. On per rectal examination, a blood staining firm area measuring 4.5cm was present anteriorly 5 cm away from the anal verge.Chest X ray was unremarkable and ultrasound abdomen did not show any significant lesion or lymphadenopathy. MRI pelvis was suggestive ofneoplastic mass of anorectum which appeared heterogeneously hyperintense on T2 showing restriction on DW1. Abdominoperineal resection with end colostomy was done and excised gut segment was sent for histopathological examination. No evidence of metastasis over mesentry, peritoneum or liver was found intraoperatively. A gut segment alongwith anal canal measuring 17cm in length was received in pathology department. Cut ends measured 4 and 3 cm. On examination, A firm to hard polypoidal tan coloured growth was identified in lumen measuring 3X2X1 cm which was 5cm from anal verge. Microsections examined from growth showed atypical cells in groups, sheets and fascicles. The cells were round to oval to spindle having high N:C ratio, granular chromatin and prominent nucleoli in some. Intracellular and extracellular melanin pigment was present (figure 1 and 2). One lymph node was identified which was free from tumor infiltration. On immunohistochemistry, these cells are HMB-45(Human Melanoma Black) (figure 3)and S-100 positive (figure 4), thus confirming the diagnosis of malignant melanoma of anorectum.

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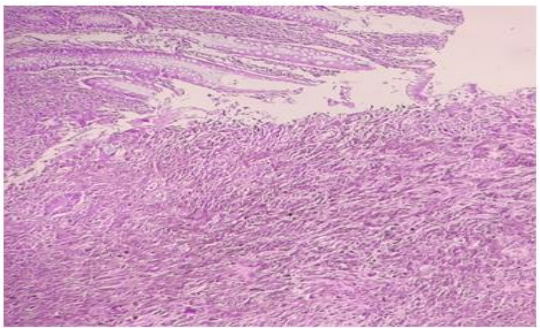

Figure1. Histoathological examination shows sheets and fascicles of atypical melanocytic cells.(HE stain,10X)

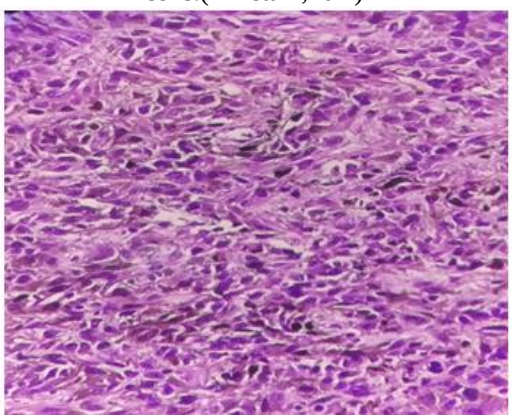

Figure 2. Histopathological examination shows tumor cells with brown pigment in the cytoplasm.(HE stain, 40X)

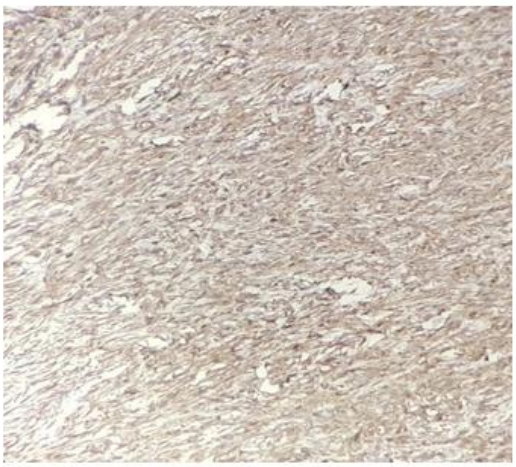

Figure 3. HMB-45 positivity in tumor cells (40X)

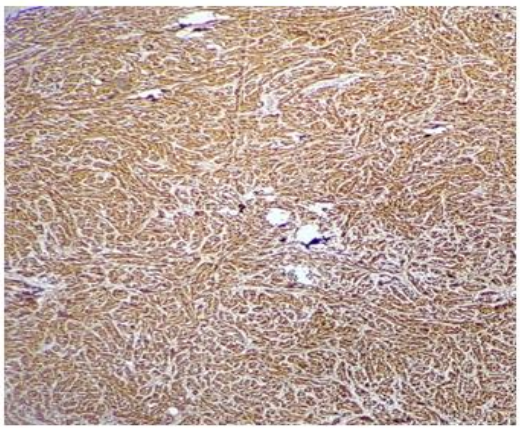

Figure4. Diffuse S-100 positivity in tumor cells (40X)

III. DISCUSSION:

All cutaneous and mucosal melanomas arise from the melanoytes. These cells are derived from embryonal neural crest. Because of abundant melanocytes in rectal mucosa, it is the common site for malignant melanoma. In the rectum, melanocytes are located at the anal transition zone and squamous zone. Most anorectal melanomas arise from the dentate line and 65% are located within the anal canal or at the anal verge.[2] It is also seen that immunology also plays role in the development of anorectal melanoma as the patients with Human Papilloma virus (HPV)have higher incidence of developing this disease.[2,6]The malignant transformation in anorectal areas may be related to oxidative stress in these regions and/or to immunosuppression.[8]Although, malignant melanoma of rectum is a rare rectal tumor, it is very aggressive and metastasizes to inguinal lymph nodes, mesenteric lymph nodes, hypogastric lymph nodes, para aortic lymph nodes, liver, lung, skin, and brain.[2]The main determinants of prognosis are the depth of invasion and stage of the disease and the overall 5 year survival rate is found to be<20% after diagnosis. It is seen that surgical therapies has minimal effect on prognosis, but these help in relieving the symptoms and thus improving the quality of life.[2,3]Local excision is treatment of choice in small tumors, whereas APR is done for large and obstructive tumors. Chemoradiation and immune therapy have limited role.[1,4]

IV. CONCLUSION:

Anorectal malignant melanoma is a rare disease with poor outcome and prognosis. Early-staging, diagnosis and surgical management help patients with anorectal melanoma improve their overall survival and better quality of life. Although, the important therapeutic options are stillcombined chemotherapy, anti-BRAF therapy, TKIs, and immune-checkpoint inhibitors for these patients, we need further more studies to improve survival and quality of life of anorectal melanoma patients.

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