Original Research Paper Pathology

MALIGNANT MELANOMA OF RECTUM

Dr A.K. Shrivastav	Associate professor, Department of pathology, Rajendra Institute of Medical Sciences, Ranchi- 834009.
Dr Mushtaque Ahmad Ansari	Associate professor, Department of pathology, Rajendra Institute of Medical Sciences, Ranchi- 834009.
Dr Manoj kumar paswan	Assistant professor, Department of pathology, Rajendra Institute of Medical Sciences, Ranchi- 834009.
Dr B.C.Adhikari	Associate professor, Department of pathology, Rajendra Institute of Medical Sciences, Ranchi- 834009.
Dr Rina kumari	Postgraduate student, Department of pathology, Rajendra Institute of Medical Sciences, Ranchi- 834009.

ABSTRACT Primary malignant melanoma of rectum is extremely rare and highly aggressive tumor. It originates from the melanocytes near the dentate line that progress upward from the submucosa towards the rectum. Most common presenting symptoms are tenesmus, rectal bleeding and altered bowel habit. Due to the aggressive nature of this tumor,early diagnosis and prompt treatment is required. We are presenting a case of 40 year male with rectal mass.

KEYWORDS : Malignant melanoma of rectum, Histopathology, Immunohistochemistry

CASE PRESENTATION:

A 52 years old male comes to surgery department of RIMS,Ranchi, Jharkhand, India with complains of bleeding per rectum for 3 months, feeling of mass in rectum for one and half month and significant weight loss in past one month. Digital rectal examination revealed a fleshy mass in the rectum. Rectosigmoidoscopy revealed an irregular surface mass with a diameter of approximately 60 mm located on the right wall of the lower rectum, 30 mm from the anal verge.

Colonoscopy was performed but it remains insignificant. CT scan of pelvis, abdomen and thorax is performed but no evidence of metastases was seen. Examination of eye and skin was performed to rule out cutaneous and ocular lesions.

Biopsy was performed of this fleshy mass which was histologically reported as undifferentiated carcinoma, but to rule out malignant melanoma IHC with HMB-45 and S-100 was done. Both of which came positive confirming the case of amelanotic melanoma.

On microscopic examination H&E section of tumor showed sheets of round to oval cells having moderate amount of cytoplasm intermixed with bizarre and giant cells.

IHC section of tumor showed nucleo cytoplasmic immunoreactivity for S-100 and cytoplasmic immunoreactivity for HMB 45.

INTRODUCTION:

Primary malignant melanoma of rectum is extremely rare and highly aggressive tumor. It is the third most common site for melanoma after skin and ocular melanoma. It originates from the melanocytes near the dentate line that progress upward from the submucosa towards the rectum. Due to the aggressive nature of this tumor, early diagnosis and prompt treatment is required.

DISCUSSION:

The incidence of primary rectal melanoma is 0.4%-3% of all malignant melanoma and 0.1%-4.6% of all anorectal malignant tumor. Skin is the most common site of malignant melanoma. Other sites for malignant malaenoma include oral and anogenital mucosal surface, oesophagus, meninges and eye. On the basis of radial and vertical growth phase it has following types.

1. Superficial Spreading Melanoma

The superficial spreading melanoma lesions are characterized by a proliferation of atypical melanocytes with a tendency to nested growth, epithelioid cytology, and a pronounced intraepidermal population of single cells distributed in pagetoid pattern ("buckshot"spread). An inflammatory infiltrate is usually present in a band-like distribution along the superficial dermis.

2. Lentiginous Melanoma Histologically, they are characterized by a proliferation of melanocytes, commonly with fusiform cytology, located along the basal layer of the epidermis. The melanocytes tend to grow along the upper portion of hair follicles as far as the level of the sebaceous gland duct. Cytologically, the melanocytes are small, with scanty cytoplasm and inconspicuous nuclei. Dendritic processes and pericellular retraction resulting from fixation artifact are characteristic**.**

3. Acral Lentiginous Melanoma Histologically, these neoplasms grow in a pattern that combines the features of both epithelioid and lentiginous melanoma. Long dendritic melanocytes are characteristic, and a spindle cell pattern is common.

4. Nodular Melanoma Most commonly the cytologic features are epithelioid, similar to those of pagetoid (superficial spreading) melanoma. Nodular melanomas are thick lesions with a poor prognosis.

5. Anogenital Melanoma The anogenital melanomas also have combined epithelioid and lentiginous features, particularly vulval melanoma.

Histologic Variants of Melanomas

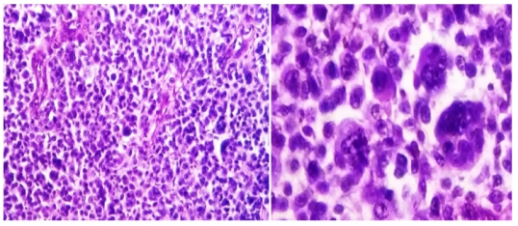
Desmoplastic Melanoma
Neurotropic Melanoma
Spindle cell melanoma
Balloon cell melanoma
signet ring cell melanoma
Blue Nevus-like melanoma
Rhabdoid malignant melanoma

Primary malignant melanoma often lack melanin pigment and not related to uv radiation. Epitheloid morphology is common, but

some tumors are composed of small cells with scant cytoplasm. Beacause of non specific symptoms, clinically it is easily confused with haemorrhoids. It is often misdiagnosed Histologically especially in amelanotic cases with undifferentiated carcinoma, lymphoma and sarcoma. But immunohistochemical stains S-100 and HMB-45 confirm the diagnosis of rectal melanoma. Nonspecifc symptoms cause delay diagnosis. The clinical diagnosis may be incorrent in 80% of all cases. Because of delayed diagnosis and rapid progression, malignant melanomas have been accompanied by distant metastases in 60% of patients at the time of final diagnosis. For malignant melanoma, multimodality treatments including surgery, chemotherapy and radiotherapy have been used. Surgery is the main treatment. The tumor tends to be quite radiotherapy resistant and shows a poor response to chemotherapy. The prognosis is poor regardless of any therapies. The most important predictors of prognosis are depth of invasion,disease stage and nodal status.

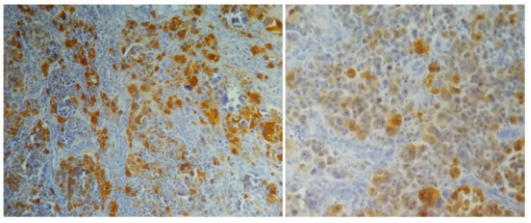
CONCLUSION

The case is being reported for its rarity. Beacause of non specific symptoms, clinically it is easily confused with haemorrhoids. Immunohistochemistry confirms the diagnosis of rectal melanoma. Prognosis of malignant melanoma depends upon staging. It is important to detect rectal malignant melanoma at an early stage to increased patient survival.



1a **1b**

Figs: H&E staining showing 1a:Round to oval cells; 1b:Bizarre and giant cells



2a **2b**

Figs:IHC staining showing 2a:Nucleocytoplasmic immunore activity for S -100; 2b cytoplasmic immunoreactivity for HMB-45

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