Anorectal Melanoma: a 10-Year Study in the North-East of Iran

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Abstract

Background: Anorectal melanoma is one of the rare but significant malignancies of the anorectal area. This malignancy currently accounts for 1% of all types of melanoma and less than 1% of all the anorectal area malignancies. Very rare cases of this disease have been reported worldwide.
Anorectal melanoma is mostly diagnosed while treating other benign conditions of this area such as hemorrhoids with conventional modalities. Its treatment of choice has always been a controversial issue.
Methods: In this study, clinical pathology and outcome of 7 cases with anorectal melanoma referred to Omid Oncology Teaching Hospital during 2001-2011 were assessed.
Results: Out of seven cases, 2 patients had been diagnosed with hemorrhoids and undergone surgery and 2 other cases had been referred with the primary diagnosis of lymphoma. Initially, only in 3 cases melanoma was diagnosed in clinicopathology setting. Three cases of patients had distant metastases to the liver, lungs, omentum and mesentery, while the other 4 patients had advanced local disease. No patient had been diagnosed in the primary stages of the disease. The mean time duration between symptoms onset to diagnosis of disease had been 8 months. The median survival time was 5 months.
Conclusion: Rare anorectal melanoma and its similar manifestations to other common anorectal conditions can delay the diagnosis, therefore should be considered as an uncommon differential diagnosis. The disease's outcome is poor and most probably delay in the diagnosis has an important role in the treatment results.

Keywords: Anorectal; Melanoma; Outcome

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Introduction

Malignant melanoma is a neoplastic disorder which results from the malignant transformation of natural melanocytes. During the neonatal period, melanocytes immigrate from the nodal crest to different parts of the body. These parts include the skin, meninges, mucous membranes, upper esophagus and the eyes. In all of these areas, melanocytes have demonstrated a potential for malignant transformation [1].

One of the rare sites which melanoma can occur is the anorectal area. Its involvement is less than 3% of all malignant melanomas and constitutes less than 1% of all tumors of the anorectal area [2]. However, the most common site for development of melanoma in the alimentary tract is the anorectal area [3]. The first case of this disease was reported by Moor in 1857 [3].

The 5-year survival rate for anorectal melanoma has been reported as less than 20%. The most important factor in predicting survival is the disease stage at the time of diagnosis [2]. There is a controversy on the best surgical approach for anorectal melanoma. Invasive methods such as Abdominoperineal Resection (APR) and bilateral inguinal lymphadenectomy are less suggested today due to the low survival rate of this condition. Nowadays, in cases in which adequate margin is available, less invasive techniques besides preserving the sphincter are more commonly recommended [2]. In the various studies performed so far, the overall survival rate of the patients treated with these two methods did not show any significant difference. Nevertheless, it seems that the local control in

Table 1. Data of the seven studied anorectal melanoma patients

	Sex	Age	Lesion location	Symptoms at presentation	Disease stage	Treatment	Final condition
1	M	72	Inf. Rectum	rectorrhagia and defecation discomfort	Hepatic metastasis	Palliative radiotherapy	Death 4mo following diagnosis
2	M	48	Anorectal area	Ext. Hemorrhoid prolapsed, rectorrhagia	Extension to serosa	APR	Death 8mo following diagnosis with hepatic metastasis
3	F	73	Inf. Rectum	Pain and Rectorrhagia	Pulmonary metastasis	Palliative chemo and radiotherapy	Death 1mo following diagnosis
4	M	65	Anorectal area	Rectorrhagia and defecation discomfort	Omentum metastasis	Palliative chemo and radiotherapy	Death 1mo following diagnosis
5	M	63	Anorectal area	Pain in perineal area	Lymph nodes in inguinal	APR and pelvic and bilateral Inguinal radiotherapy	No evidence of disease after 15mo of follow up
6	M	74	Anorectal area	Rectorrhagia	Pelvic Lymph nodes	APR	Palliative radiotherapy and death 3mo following diagnosis
7	M	58	Rectum	Rectorrhagia	Serosa	APR and complementary radiotherapy	No evidence of disease after 8 mo of follow up

patients treated with the APR surgical method is better and the recurrence rate is lower. Unfortunately, in such cases, chemotherapy or radiotherapy may correlate with unfavourable prognosis.

Materials and Methods

The records of anorectal melanoma cases referred to Omid Oncology Center, Mashhad, Iran, from 2001 to 2011 were extracted and studied. All required data were gathered from the files and their present general condition was recorded by calling each and every patient by phone.

Results

A total of 7 case files were retrieved for this study. The median age was 65 years (range 48-74). The mean time between symptoms onset to diagnosis was 8 months. One patient had been referred with complaints of pain in the perineal area and the rest with the chief complaint of rectorrhagia. In two patients, the bulk of diseases were in distal of rectum. In two patients, melanoma had been diagnosed with hemorrhoids and the melanomas were confirmed after surgery and pathology assessment. In our study, two cases had been referred with initial diagnosis of lymphoma which in complementary studies with Immunohistochemistry (IHC) and examining the tissue sample following surgery, the diagnosis of melanoma had confirmed (Figure 1, 2).

No patient had been diagnosed in the primary stages of the disease. Three of the seven patients (43%) had distant metastases to the liver, lungs, omentum and mesentery whereas another 4 (57%) had locally advanced disease. In patients with locally advanced stages, 2 cases serosa (Figure 3), in one case, pelvic lymph nodes and in one case, inguinal lymph nodes were involved.

Four cases had undergone APR surgery alone with curative intent. In these cases, we recommended adjuvant radiotherapy for two patients after APR due to lymphadenopathy based on pathology reports. Another three cases had received palliative radiotherapy. Palliative chemotherapy had been administered in two patients to lessen metastases symptoms. At the time of data analysis only 2 cases were alive. After 8 and for another 15 months of follow up have no evidence of diseases. For all patients, the median survival was 4 month (range 1-15mo) (Table 1).

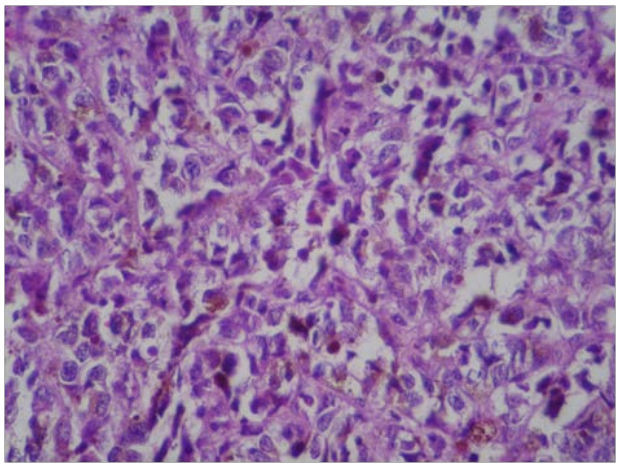

Figure 1. Intracytoplasmic melanin pigment (H&E, 400×)

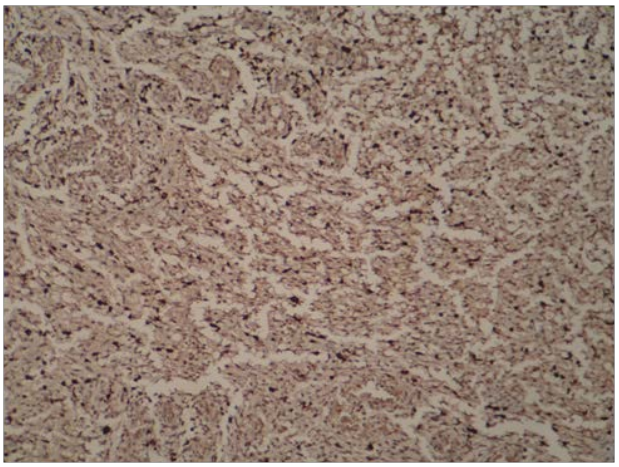

Figure 2. Diffuse cytoplasmic staining for S100 marker (IHC, monoclonal Anti-S100, 400×)

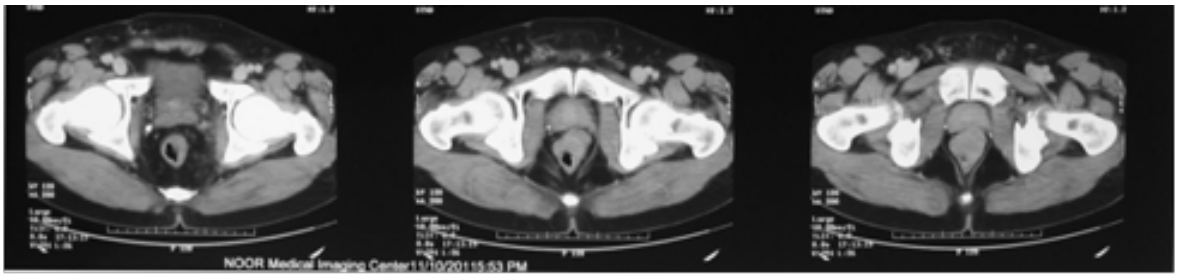

Figure 3. Massive rectal melanoma with partial obstruction

Discussion

The anorectal area is the third most common site for melanoma after the skin and eye. In the recent years, the incidence of this condition has raised in the young male population. In a study conducted on 117 cases in the U.S., the probable association between anorectal melanoma and HIV has been proposed [4, 5]. Nevertheless, most of cases of this disease occur in the 5th or 6th decades of life. In the present study, the mean age of the studied cases was 64 years which is consistent with the global age ranges for this condition.

The common and usual manifestations of this condition are rectal haemorrhage and changes in the defecation habits. Such symptoms are also the most common manifestations of other benign diseases of this area including hemorrhoids, fissures and polyps. In our investigation, one patient had been referred with complaints of pain in the perineal area and the rest with the chief complaint of rectorrhagia. Such lesions are often fully diagnosed following a simple surgical procedure. In the present investigation, two cases underwent haemorrhoidectomy for which melanoma was diagnosed on further studies.

On macroscopic evaluation, the anorectal melanoma manifests with a pigmented or non-pigmented polypoid mass. When microscopically viewed, it is seen as cellular nests which are diagnosed by specific staining against melanosomal proteins (Immunostaining) [4].

The level of invasiveness and malignancy of anorectal melanoma is defined by the short Disease-Free Survival time (DFS), the overall survival and the high rate of metastasis. Around 26% of the cases had distant metastases at the time of diagnosis [6]. Three of the seven patients (43%) had distant metastases to the liver, lungs, omentum and mesentery while the other (57%) had advanced local disease.

In the current study, the mean time between the onsets of symptoms to confirmation of the final diagnosis was 8 months and the median survival following diagnosis was 4 months. This high rate of metastasis could be due to the delay in diagnosing the disease. In Cooper et al study on 65 cases with anorectal melanoma, the mean duration of symptoms

before diagnosis was 5.3 months and 38% of the cases had distant metastatic disease at the time of diagnosis [7].

The number of anorectal melanoma patients even in major oncology centers is limited. In general, one case is reported every year from each center [8]. Omid Oncology Center statistics also roughly correspond with these figures.

Very limited surgical guidelines are available for this disease. APR could be the definite cure for lesions with a less than 2 mm invasion depth. This is based on the hypothesis that this disease spreads through the submucosal lymphatic system and the mesenteric lymph nodes. Therefore, the APR surgical method could be proposed as the method of choice in such patients [9].

Wide Local Excision (WLE) is another recommendable surgical technique. Radiotherapy is considered as a palliative treatment in tumors with extensive involvement and often unresectable or in cases in whom surgery is contraindicated due to other underlying medical disorders. In metastatic patients, the combination of radiotherapy and chemotherapy can be applied as a palliative treatment.

Overall, the prognosis of anorectal melanoma seems to be poor and the delay in diagnosis leads to high disease stage at the time of treatment. Most probably distant micro-metastases had been occurred in our cases (4 patients) who presented locally advanced.

Conclusion

Anorectal melanoma is a rare disease and should be considered as an uncommon differential diagnosis for lesions in this area to prevent misdiagnosis. Better results could be further achieved by the close cooperation of different related specialties which could lead to the earlier diagnosis and better prognosis in such cases.

Acknowledgment

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Conflict of Interest

None of the authors declare conflicts of interest.

Authors' Contribution

Kazem Anvari designed the study and revised the manuscript. Payam Izadpanahi contributed for data gathering and writing the manuscript. Bahram Memear contributed the pathologic results.

References

1. Singlof CL, Floherty k, Rosenberg SA, Read PA. Cancer of rectum in: Devita L. Principles and practice of oncology.9th ed. Philadelphia: Lippincot Williams & Wilkins. 2011;1127-52.

2. libutti SK, willet CG, Saltz LB. Cotaneous melanoma. in: Principles and practice of oncology.9th ed. Philadelphia: Lippincot Williams & Wilkins. 2011;1643-91.

3. Whooley BP, Shaw P, Astrow AB. Long term survival after locally aggressive anorectal melanoma. Am Surg. 1998; 64:245-51.

4. Roviello F, Cioppa T, Marrelli D, Nastri G, De Stefano A, Hako L, et al. Primary ano-rectal melanoma: considerations on a clinical case and review of the literature. J Cutan Med Surg .2008; 12(3):117-20.

5. Felz MW, Winburn GB, Kallab AE. Anal Melanoma: An aggressive malignancy masquerading as hemorrhoids. South Med J. 200; 94:880-5.

6. Thibault C, Sagar P, Nivatvongs S. Anorectal Melanoma-an Incurable Disease? Dis Colon Rectum .1997; 40:661-9.

7. Cooper PH, Mills SE, Allen MS Jr. Malignant melanoma of the anus: report of 12 patients and analysis of 255 additional cases. Dis Colon Rectum. 1982; 25:693-703.

8. Brady MS, Kavolius JP, Quan SH. Anorectal melanoma: A 64-year experience at Memorial Sloan-Kettering Cancer Center. Dis Colon Rectum. 1995; 38:146-51.

9. Fratesi L, Alhusayen R, Walker J. Case report of primary rectal melanoma and review of the ethology of melanoma. J Cutan Med Surg. 2008; 12(3):117-20.