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RESEARCH ARTICLE

Primary Malignant Melanoma of Anorectum: A rare entity

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Abstract

primary melanoma. It portrays worse prognosis than cutaneous melanoma, with distant metastases being the overwhelming cause of morbidity and mortality. Surgery is the treatment of choice, but significant controversy exists over the extent of surgical resection. We report a case of primary anorectal malignant melanoma. A 70 year old female with history of bleeding per rectum. On colonoscopy she had a growth per rectum with HPE suggestive of malignant melanoma. Abdominoperineal resection was done and patient was kept under followup. Subsequently she developed pulmonary and hepatic metastasis. Primary anorectal melanoma is an uncommon and aggressive disease that carries a poor prognosis. Therefore, it is necessary to provide systemic treatment. To improve prognosis, it is important to detect anorectal melanoma at an early stage.

The anorectum is a rare anatomic location for

INTRODUCTION

The anorectum is the third most common location of malignant melanoma after the skin and retina. The most common symptom is rectal bleeding, which is often mistaken for bleeding associated with haemorrhoids (Goldman et al., 1990; Maqbool et al., 2004; Das et al., 2003). For patients with anorectal malignant melanoma, treatment strategy includes surgery, chemotherapy, and radiotherapy. However, the tumor tends to be considerably resistant to radiotherapy and shows a poor response to chemotherapy. The choice of wide local excision (WLE) or abdominoperineal resection (APR) is also controversial (Goldman et al., 1990; Thibault et al., 1997; Brady et al., 1995; Ishizone et al., 2008). The prognosis is very poor, with less than 20% survival five years after diagnosis (Thibault et al., 1997; Brady et al., 1995; Slingluff et al., 1992).

Case Study

A 70-year-old female was referred to our hospital with the chief complaint of bloody stool. Digital examination of the rectum revealed a nodular growth starting about 2cm from anal verge and involving almost 2/3rd of the circumference of the lumen, upper limit of the growth cannot be reached. Colonoscopy revealed an Ulcerated, nodular, necrotic, circumferential growth in rectum extending to anal canal (**Figure 1**). Histopathological examination showed features suggestive of malignant melanoma of anorectal junction. Computed tomography (CT) showed a small unbilical hernia, perirectal fat planes were normal with no evidence of distant metastasis (**Figure 2**). The patient was treated by abdominoperineal resection (APR) (**Figure 3**) with dissection of lymph nodes. The resected specimen showed sheets of loosely cohesive, large, round to polygonal, at places spindle cells, with moderate to abundant cytoplasm, few cells show intracellular brownish pigmentation. The tumor was infilterating

through the muscular layer with involvement of perimuscular fat and 11 out of 13 lymph nodes. Immunohistochemical analysis results were strongly positive for the expression of S-100 protein and HMB-45.The final diagnosis was malignant melanoma. The patient was discharged on the 19th postoperative day after an uneventful course in the hospital except for perianal wound infection. Postoperative adjuvant chemotherapy was not performed because of advanced age.
Three months after the resection, the patient was advised afollowup CT-scan of chest and abdomen which showed few hypodense lesions in liver and both the lungs suggestive of metastasis.

Discussion

Primary Anorectal malignant melanoma is a rare type of malignant melanoma, and widely considered to be a distinct clinical entity from cutaneous melanoma based on its poor prognosis. Though mucosal melanoma arising from various head and neck mucosal surfaces comprises over 50% of Malignant melanoma, the anorectum is a common anatomical site, and is the third most common location for malignant melanoma after cutaneous melanoma (CM) and ocular melanoma.The incidence has been reported to be 0.4%–3.0% of all malignant melanoma and 0.1%–4.6% of all anorectal malignant tumors (Thibault et al., 1997; Chang et al., 1998; Heyn et al., 2007; Klas et al., 1999). Melanomas of the anorectum are the third most common after melanomas of the skin and retina. Malignant melanomas occur frequently in the anorectum because of the presence of abundant melanocytes in the mucosa of the anal canal. The reported 5-year overall survival rate is 6%–15% of patients after surgery (Thibault et al., 1997; Brady et al., 1995; Slingluff et al., 1992; Konstadoulakis et al., 1995; Roumen et al., 1996; Cooper et al., 1982). Several studies have reported cases of long-term survival (Kiran et al., 2010; Whooley et al., 1998; Malik et al., 2002). The main determinants of prognosis are the depth of invasion and stage of the disease (Balch et al., 1979). Early-stage detection is important. The tumor has been reported in older patients and women, and the common initial symptoms are rectal bleeding and/or pain. Obvious melanin pigmentation is present in only 20% of patients (Morson et al., 1963). Therefore, the symptoms are often confused as those of hemorrhoids. Nonspecific symptoms cause delayed diagnosis, which is also caused by the similarity of histological findings to those of other malignancies. The clinical diagnosis may be incorrect in 80% of all cases (Morson et al., 1963; Maqbool et al., 2004; Das et al., 2003). Because of delayed diagnosis and rapid progression, malignant rectal melanomas have been accompanied by distant metastases in 60% of patients at the time of final diagnosis (Thibault et al., 1997; Cooper et al., 1982). Immunohistochemical studies are useful methods for establishing correct diagnosis, and the diagnoses in our cases were confirmed by the expressions of S-100 protein and HMB-45.
For anorectal malignant melanoma, multimodality treatments including surgery, chemotherapy, and radiotherapy have been used. Surgery is the main treatment. The surgical procedure varies from WLE to APR. However, the relative benefit of these individual procedures is unclear (Brady et al., 1995; Bullard et al., 2003). In our case, APR was performed because the preoperative diagnosis was poorly differentiated adenocarcinoma, and it was possible to perform curative surgery. There are some reports that these surgical therapies have minimal impact on prognosis, but they can have some effect in controlling symptoms or improving the patient's quality of life. Correlation between the depth of invasion and median survival has also been reported (Balch et al., 1979), and long-term survival is possible after curative surgery (Kiran et al., 2010; Whooley et al., 1998; Malik et al., 2002). Therefore, we should choose surgical procedures according to the tumor stage.
The tumor tends to be quite radiotherapy resistant and shows a poor response to chemotherapy (Malik et al., 2002). The role of adjuvant chemotherapy has not been established. The prognosis is poor regardless of any therapies, and the most important predictors of prognosis are disease stage, symptom duration, tumor size, and nodal status (Whooley et al., 1998; Pessaux et al., 2004; Yeh et al., 2006). Therefore, early detection of anorectal melanoma is critical for reducing the mortality rate.

Conclusion

Anorectal melanoma is a rare and aggressive disease. Because of nonspecific symptoms, it is easily mistaken for hemorrhoids. Because malignant melanoma occurs frequently in the anorectum, clinicians should suspect anorectal melanoma in cases presenting with blood in the stool. Furthermore, the prognosis depends on the staging, and it is important to detect anorectal melanoma at an early stage. There is a clear advantage to complete R0 surgical excision. While neither surgery nor radiation has had a clear impact on survival, adjuvant radiotherapy does appear to provide greater loco-regional disease control. Due to the rarity of this disease process, no prospective, randomized trials can definitively elucidate the ideal multimodality therapy. Ultimately, the development of further effective adjuvant therapy may improve the survival rate.

Acknowledgment

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Conflict of Interest

None

References

1. Balch CM, Soong CJ, Murad TM, Ingalls AL, Maddox WA, "A multifactorial analysis of melanoma. II. Prognostic factors in patients with stage I (localized) melanoma," Surgery 1979; 86: 343–351.
2. Brady MS, Kavolius JP, Quan SHQ, "Anorectal melanoma: a 64-year experience at Memorial Sloan-Kettering Cancer Center," Diseases of the Colon and Rectum 1995; 38: 146–151.
3. Bullard KM, Tuttle TM, Rothenberger DA. "Surgical therapy for anorectalmelanoma,"Journal of the American College of Surgeons 2003; 196: 206–211.
4. Chang AE, Karnell LH, Menck HR, "The National Cancer Data Base report on cutaneous and noncutaneous melanoma: a summary of 84,836 cases from the past decade. The American College of Surgeons Commission on Cancer and the American Cancer Society," Cancer 1998; 83: 1664–1678.
5. Cooper PH, Mills SE, Allen MS. "Malignant melanoma of the anus. Report of 12 patients and analysis of 255 additional cases," Diseases of the Colon and Rectum 1982; 25: 693–703.
6. Das G, Gupta S, Shukla PJ, Jagannath P. "Anorectal melanoma: a large clinicopathologic study from India," International Surgery 2003; 88: 21–24.
7. Goldman S, Glimelius B, Pahlman L. Anorectal malignant melanoma in Sweden: report of 49 patients, Diseases of the Colon and Rectum 1990; 33: 874–877.
8. Heyn J, Placzek M, Ozimek A, Baumgaertner AK, Siebeck M, Volkenandt M. "Malignant melanoma of the anal region," Clinical and Experimental Dermatology 2007; 32: 603–607.
9. Ishizone S, Koide N, Karasawa F. "Surgical treatment for anorectal malignant melanoma: report of five cases and review of 79 Japanese cases," International Journal of Colorectal Disease 2008; 23: 1257–1262.
10. Kiran RP, Rottoli M, Pokala N, Fazio VW. "Long-term outcomes after local excision and radical surgery for anal melanoma: data from a population database," Diseases of the Colon and Rectum 2010; 53: 402–408.
11. Klas JV, Rothenberger DA, Wong WD, Madoff RD, "Malignant tumors of the anal canal: the spectrum of disease, treatment, and outcomes," Cancer 1999; 85: 1686–1693.
12. Konstadoulakis MM, Ricaniadis N, Walsh D, Karakousis CP. "Malignant melanoma of the anorectal region," Journal of Surgical Oncology 1995; 58: 118–120.
13. Malik A, Hull TL, Milsom J, Wolff B, "Long-term survivor of anorectal melanoma: report of a case," Diseases of the Colon and Rectum 2002; 45: 1412–1417.
14. Maqbool A, Lintner R, Bokhari A, Habib T, Rahman I, Rao BK. "Anorectal melanoma—3 case reports and a review of the literature," Cutis 2004; 73: 409–413.
15. Morson BC and Volkstädt H. "Malignant melanoma of the anal canal," Journal of Clinical Pathology 1963; 16: 126–132.
16. Pessaux P, Pocard M, Elias D. "Surgical management of primary anorectal melanoma," British Journal of Surgery 2004; 91: 1183–1187.
17. Roumen RMH. "Anorectal melanoma in the Netherlands: a report of 63 patients," European Journal of Surgical Oncology 1996; 22: 598–601.
18. Slingluff CL and Seigler HF. "Anorectal melanoma: clinical characteristics and the role of abdominoperineal resection," Annals of Plastic Surgery 1992; 28: 85–88.
19. Thibault C, Sagar P, Nivatvongs S, Ilstrup DM, Wolff BG. "Anorectal melanoma: an incurable disease?" Diseases of the Colon and Rectum 1997; 40: 661–668.
20. Whooley BP, Shaw P, Astrow AB, Toth IR, Wallack MK. "Long-term survival after locally aggressive anorectal melanoma," American Surgeon 1998; 64: 245–251.
21. Yeh JJ, Shia J, Hwu WJ. "The role of abdominoperineal resection as surgical therapy for anorectal melanoma," Annals of Surgery 2006; 244: 1012–1017.

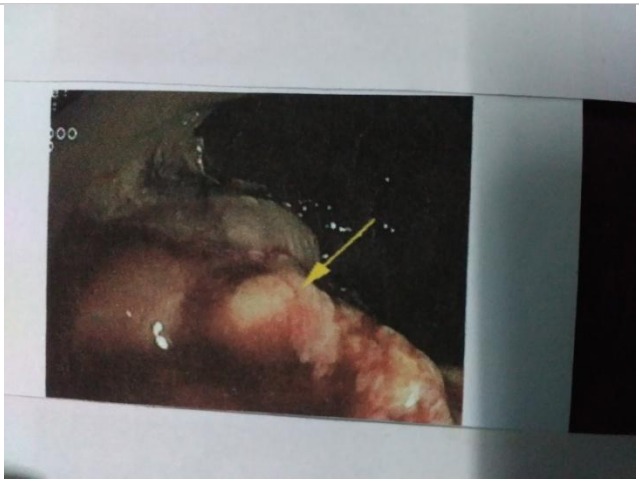

Figure 1: Colonoscopic view of growth

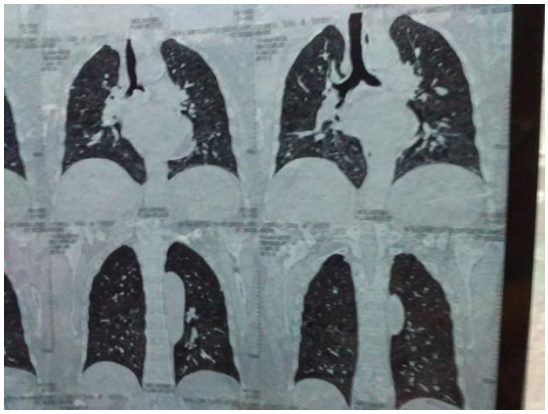

Figure 2: CT image showing Pulmonary metastases

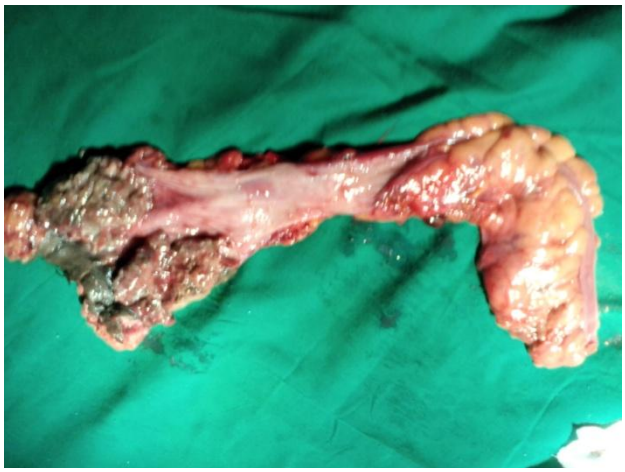

Figure 3: Total specimen of APR