A case of primary colonic melanoma associated with vitiligo-like depigmentation

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Introduction:
Malignant melanoma of the gastrointestinal tract (GIT) is predominantly a metastatic phenomenon from a primary cutaneous or ocular melanoma. Only 20% of all malignant melanoma of GIT presented with GI tract involvement as the first site of the disease.1 The prevalence of vitiligo-like depigmentation in melanoma patients is estimated to be between 2% and 16%. 2

Case Report:
We report a 53 year old lady who was referred by the surgical team to rule out primary cutaneous melanoma. She presented with altered bowel habit and constitutional symptoms. Colonoscopy revealed a fungating mass arising from the ascending colon. Tissue biopsy from the ascending colon showed ulcerated colonic mucosa with solid sheets of tumour cells and adjacent necrosis. The malignant cells exhibited hyperchromatic and pleomorphic nuclei with prominent macronucleoli and scanty cytoplasm. The immunohistochemistry was positive for S100 and HMB-45 confirming the diagnosis of malignant melanoma (Figure 1a-b).

On examination, we observed multiple degenerated patches, resembling vitiligo on the face and chest (Figure 2a-d), multiple, irregular, hyperpigmented macules and patches over both axillae and a hyperpigmented patch, surrounded by a rim of hypopigmentation on the left calf. She denied prior history of skin cancer, excised melanotic nevi, ocular lesions, or family history of melanoma. Skin biopsies taken from both areas, right axilla and left calf excluded primary cutaneous melanoma. Ophthalmology assessment was normal.

CT scan of thorax, abdomen and pelvis demonstrated an ascending colonic mass with regional lymph nodes enlargement with no metastases elsewhere. She was diagnosed of stage II primary malignant melanoma of the ascending colon and subsequently underwent right hemicolectomy.

Discussion:
Primary colonic melanoma is rare with only 12 cases have been reported.3 The rarity of colonic melanoma rightfully raises suspicion for a regressed primary cutaneous melanoma. An extensive dermatologic workup is warranted to identify any potential metastatic sources for the disease. Our patient had no history of previous cutaneous lesions that were either excised or spontaneously regressed. Skin examination however revealed atypical lesions on her axillae and left calf, but biopsies from these two sites excluded primary cutaneous melanoma. It is also important to rule out ocular melanoma as the primary source, which was excluded in our patient.

Melanoma-associated depigmentation is characterized by the appearance of white patches in sites distant from primary tumour and occurred more commonly following treatment. Other types of leukodermia (hypopigmentation) that have been described in melanoma patients include primary tumor regression (replacement of the primary tumor by progressive fibrous stroma within the superficial dermis) and Halo nevus (a rim of depigmentation surrounding a melanocytic nevus). In a series of 15 patients with melanoma, 75% of the patients with melanoma-associated leukoderma had a bilateral and symmetrical distribution of depigmentation similar to disseminated vitiligo, whereas only 25% of the population studied had a focal or asymmetric unilateral distribution of hypopigmentation; no patients with the association had an acrofacial distribution of depigmentation. 2 Our patient had bilateral symmetrical depigmentation over her cheeks and a focal lesion on her chest. The association between melanoma and depigmentation is probably the result of a dual immune response against antigens present in both melanocytes and melanoma cells, 3-4 where the primary immunogenic effect would be tumor rejection, but with a simultaneous secondary autoimmune effect characterized by hypopigmented macules. Longer survival has been observed in patients who develop leukodermia associated with melanoma. 4

This case highlights the importance of a thorough complete skin examination to rule out malignant melanoma in a patient presented with newly diagnosed vitiligo. A high index of suspicion is needed in patients presented with atypical distribution of degenerated lesions or other associated leukodermas (hypopigmented scars, halo nevi) and without family history of vitiligo in view of the strong correlation between melanoma and depigmentation. Besides, for all GIT melanoma, it is fundamental to investigate for a primary source of malignant melanoma, possibly from tumor regression or occult malignant melanoma.

No conflict of interest for all authors

References: