

Cutaneous Verrucous Carcinoma Superimposed on Chronically Inflamed Ileostomy Site Skin: A Case Report

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KEYWORDS

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ABSTRACT

Verrucous carcinoma (VC) is a rare variant of well differentiated squamous cell carcinoma (SCC) which is usually found in oral cavity mucosa. Cutaneous verrucous carcinoma is a rare entity and in this paper we report a 43 years old man with VC superimposed on chronically inflamed skin of ileostomy site. Previously, he was operated to treat rectal adenocarcinoma and has had ileostomy for six months. The skin lesion was resected totally during surgical operation for ileostomy closure. Histopathologic examination confirmed the diagnosis of cutaneous verrucous carcinoma. Post-operative follow up shows no evidence of recurrence after six months. We suggest patient's training for follow up visits in order to early detection of osteomy site complications including neoplastic changes.

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Introduction

Verrucous carcinoma (VC) is a rare variant of well differentiated squamous cell carcinoma (SCC) which described by Dr. Lauren Ackerman in 1948 for the first time (1,2). VC is more prevalent in men and tends to present in elderly (3). This neoplasm is usually found in oral cavity mucosa. This low grade variant of SCC is also reported in pharyngeal, laryngeal, sinonasal and esophageal mucosa, etc. Cutaneous verrucous carcinoma (also known as Epitheliomaculatum) is much rarer entity and was reported in head and neck, palmoplantar, anogenital and gluteal skin, etc (2). There are evidences supporting the role of tobacco use and Human papilloma virus (HPV) as predisposing factors for developing VC (4,5,6). Indolent cytological appearance paradoxical to the local invasion potential makes a unique neoplastic character for VC^{2,7}. Although cases of lymph node metas-

tasis were reported rarely, tendency of VC for distant metastasis is dispensable (1,2,8).

In this paper we report a case of VC superimposed on chronically inflamed skin of ileostomy site.

Case Report

A 43 years old smoker man presented with painless rectorrhagia for 2 months and referred to gastrointestinal specialist for further evaluation. In his colonoscopy a rectal mass was seen 7 cm distant from anal sphincter. Biopsy was taken and sent for histopathologic examination which confirmed the diagnosis of adenocarcinoma. In preoperative work up, there was no evidence of distant metastasis. After accomplishing neo-adjuvant chemotherapy, he was admitted for surgical treatment (ultra-low anterior colon resection and protective loop ileostomy). Post-operative course was uneventful and chemotherapy was continued be-

fore he underwent the second surgical operation for anastomosis of bowel and ileostomy closure. The skin ring harboring the open loop of small bowel was resected and sent for pathologic evaluation.

In gross pathologic examination of the specimen presence of multiple grayish white exophytic non ulcerated skin warty lesions was remarkable. The lesions were polypoid with filiform superficial projections and broad area of attachment to the underlying skin (Figure 1).

Microscopic assessment of the Hematoxylin and Eosin (H&E) stained slides confirmed the diagnosis of VC for the skin lesions which resected completely with free surgical margins (Figure 2). Follow up of the patient for six months did not show any evidence of recurrence.



Figure 1. Cutaneous verrucous carcinoma of ileostomy site in gross pathologic examination shows polypoid lesion with verruca-like surface

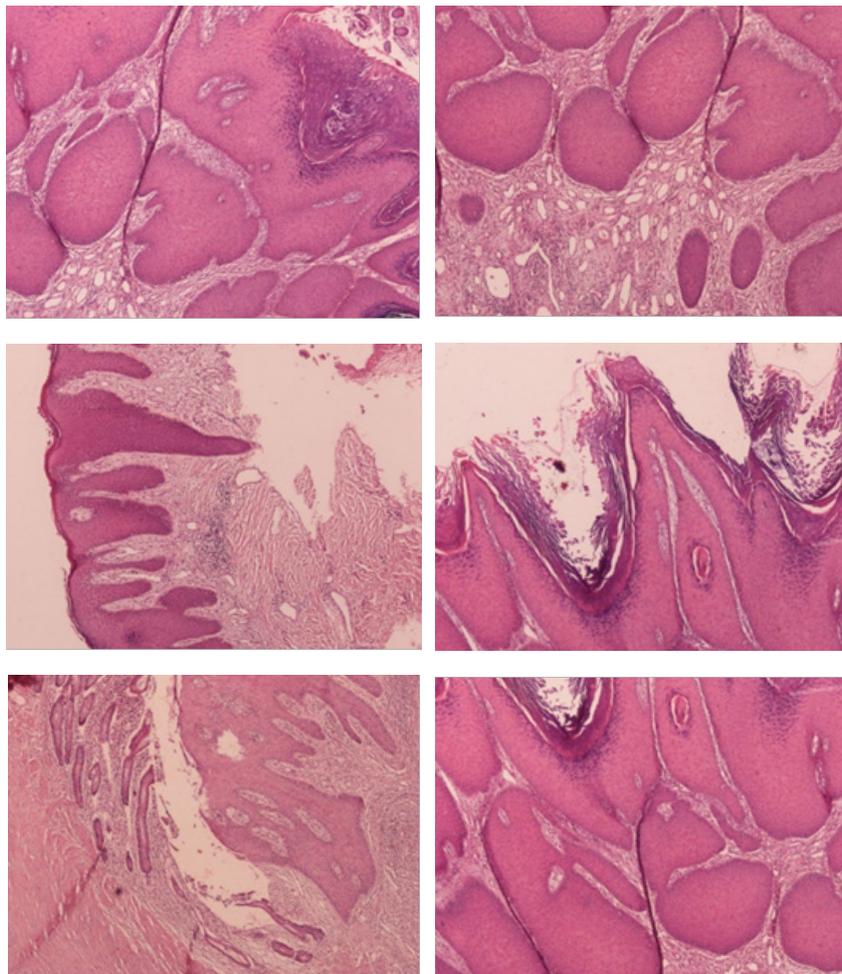


Figure 2. Cutaneous verrucous carcinoma of ileostomy site in microscopic histopathologic examination reveals verruca type hyperkeratosis and papillomatosis at surface and endophytic growth of elephant feet-like rete pegs deep into the stroma with reactive dermal chronic inflammation. Lack of squamous cell atypia and intactness of basal membrane are also notable. (Hematoxylin and Eosin staining $\times 25$)

Discussion

Cutaneous verrucous carcinoma is a rare variant of well differentiated squamous cell carcinoma with local invasion potential. Grossly, it appears as a soft papillary fungating skin lesion invades contiguous structures, slowly. Microscopically, verruca type acanthosis and hyperkeratosis plus benign looking papillomatosis could be seen on superficial areas while broad expansion of squamous rete pegs could be seen in deeper areas with club shape pushing borders (1,2,8).

Differential diagnoses for VC could be simple wart and invasive types of well differentiated squamous cell carcinoma.

On one hand and in gross examination of the present specimen, the lesions consist of non-ulcerative white gray soft nodules with cauliflower-like surface which could be in differential diagnosis with verruca vulgaris (simple wart). At microscopic level, pushing borders of elephant feet-like endophytic projections confirm the nature of the neoplasm and exclude verruca vulgaris as a differential diagnosis. On the other hand, other variants of squamous cell carcinoma should be ruled out as differential diagnoses. Morphologically, absence of atypia and non-infiltrating borders of the lesion could be strong clues to rule out the later differential diagnoses.

As a matter of fact, site of surgical ostomies may develop various complications by time such as stenosis, irritation, ulceration, herniation, etc. Neoplastic changes in ileostomy site are quite rare and reports of cases with squamous cell carcinoma of ileostomy sites are extremely rare, worldwide. Most of the ileostomy associated neoplastic lesions develops during long periods of time (2-24 years). Interestingly in this case, VC superimposed on ileostomy associated chronic dermatitis merely after 6 months. Increased risk of developing conventional types of SCC on chronically injured and irritated skin is quite clear. Thus, chronic mechanical and chemical damage of skin could be considered as possible contributory factors for development of VC, too.

It seems to be logic to suggest regular follow up plan

for ostomy sites in order to diagnose related complications earlier.

Conclusion

Cutaneous VC is rare variant of SCC and VC of ileostomy site is an extremely rare condition. Chronic mechanical and chemical damage to the skin of ileostomy site could be considered as possible contributory factors. More studies are required to proof and/or explain their potential roles in development of VC. Early detection of the ostomy sites complications is possible simply by regular follow up visits. We suggest encouraging the patients for regular visits following ostomy surgeries in order to detect complications earlier, especially potential neoplastic changes.

Conflict of Interest

The authors declare no financial relationship with any organization regarding this research.

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