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Carcinoma of the Esophagus in Patient With Psoriasis: A Case Report

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Psoriasis is an immune-mediated, genetic inflammatory disease predominantly affecting the skin and joints. Although various cancers including lymphoma, nonmelanoma skin cancer, and lung cancer among psoriasis patients are more commonly found than the general population; carcinoma of the esophagus has never been reported. The aim of this report was to describe a case of carcinoma of esophagus that was diagnosed in a psoriatic patient. A 50-year-old Thai male presented with epigastric fullness, progressive dysphagia, vomiting, and weight loss for 2 kg within one month. Physical examination revealed multiple erythematous plaques 1 - 3 cm on the trunk and limbs. He had been diagnosed as psoriasis for a year and treated with topical creams. The esophagoscopy revealed the cancer at the lower end of the esophagus that was proved to be poorly to moderately differentiated carcinoma. The computerized tomography of the chest including the upper abdomen showed the esophageal tumor abutting the left bronchus and aorta with multiple lymphadenopathy. He was diagnosed with T3N2M1 stage that was treated with supportive gastrostomy followed by palliative radiotherapy and chemotherapy. Because the carcinoma of esophagus has been hardly reported in psoriatic patients, it could not be easily concluded whether these two entities may have relationship or they just happen by chance.

Keywords: Carcinoma of esophagus, Psoriasis

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Introduction

Psoriasis is a chronic multi-systemic inflammatory disease predominantly affecting the skin and joints. It is characterized by the keratinocyte hyperproliferation and erythematous plaque formation with overlying silvery scale on the skin. Although the etiology is not yet known, the T-cell mediated autoimmune process may play the role.[1] It migrates into the dermis and causes the release of tumor necrosis factor-alpha, leading to rapid and marked proliferation of keratinocytes.[2] The skin lesion usually starts with erythematous plaques followed by whitish scales on top of plaque.[3] The predilection sites are the extensor surface of elbows, knees, scalp, and nails. The shape is usually round or ovoid, and the size also varies from 0.5 cm up.[4, 5] The treatment consists of corticosteroids or cases with extensive skin lesion more than 10% of the body surface may need systemic immunosuppressant such as cyclosporine or methotrexate.[6]

The association between psoriasis and arthritis has been well known.[7] In one study, 190 000 patients with psoriasis have an incidence of cancer slightly higher than the general population within 12 years of diagnosis, adjusted hazard ratio 1.06 (95% confidence interval [CI], 1.02 - 1.09). Lymphoma, nonmelanoma skin cancer, and lung cancer have been reported.[8]

In Thailand, although 11 548 patients with psoriasis were reviewed, no malignancy was reported.[9] We described a case of carcinoma of the esophagus found in a psoriasis patient.

Case Presentation

A 50-year-old Thai male presented with epigastric fullness, progressive dysphagia, vomiting for 1 month, and he lost weight for 2 kg. The physical examination revealed no epigastric mass, no supraclavicular lymph node enlargement. He had been diagnosed as severe psoriasis for a year before this presentation, the lesions could be found at the scalp, trunk, limbs but no nail involvement. The patient has been treated with topical steroid cream. Multiple erythematous plaques were found in various sizes and shapes at the trunk, upper and lower limbs on presentation.

Blood tests were evaluated including hemoglobin, 13.3 g/dL; hematocrit, 39.5%; white blood cell, 6800/mm^3; platelet, 374 000/mm^3; mean corpuscular volume, 104.1 fL; mean corpuscular hemoglobin, 35.2 pg; mean corpuscular hemoglobin concentration, 33.8 g/dL; red cell distribution width, 12.7%; creatinine, 0.64 mg/dL; direct bilirubin, 0.2 mg/dL; total bilirubin, 0.8 mg/dL; albumin, 3.5 g/dL; globulin, 3.8 g/dL; aspartate aminotransferase, 96 U/L; alanine aminotransferase, 42 U/L; alkaline phosphatase, 49 U/L; antigen/antibody of hepatitis B virus was negative; antibody for hepatitis C was negative; and human immunodeficiency virus was nonreactive.

The computerized tomography of the chest and upper abdomen showed heterogeneous enhancing circumferential wall thickening of mid esophagus, about 6 cm in length, causing severe luminal narrowing and upstream fluid-filled dilatation of proximal esophagus. It also abutted the left main bronchus, anteromedial aspect of descending aorta with loss of fat plane and obliterated the triangular fat space, suspicious for invasion. The lymph nodes were found at the right paratracheal, subaortic, and left gastric regions, up to 2.1 cm in short axis. The liver had an ill-defined hypodense lesion at segment 7, about 1 cm in size, concerning liver metastasis.

The esophagoscopy revealed an almost circumferential ulcerative mass at 28 to 30 cm from the incisors with almost complete obstruction that could not pass the scope into the distal part (Figure 1). The microscopic pathology of the esophageal mass show moderately to poorly differentiated carcinoma (Figure 2).

The staging revealed T3N2M1 stage of the tumor. Gastrostomy for nutritional support, palliative radiation and chemotherapy, consisting of cisplatin and 5-fluorouracil (5-FU) were undertaken. During admission, the erythematous lesions of psoriasis gradually disappeared with the topical cream without emergence of the new lesions.

Figure 1. **Esophagogastroduodenoscopy (EGD) Showed Circumferential Ulcerative Mass With Almost Complete Obstruction**

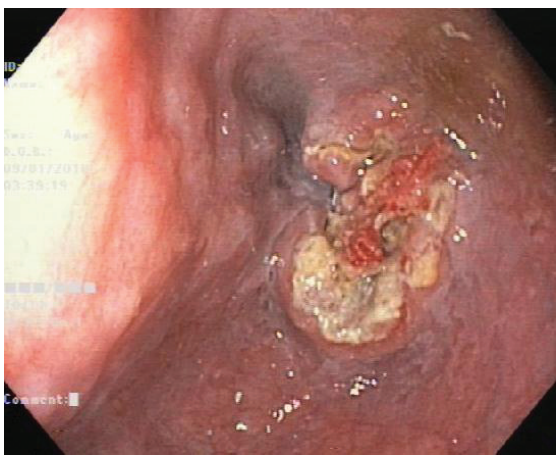
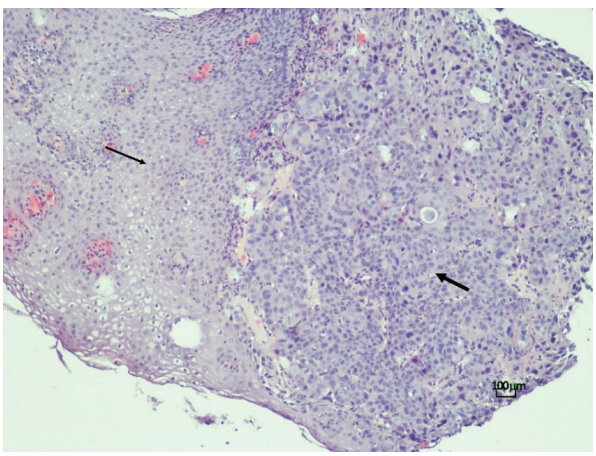


Figure 2. **Normal Esophagus (Left Arrow) and Malignant Transformation (Right Arrow)**



Discussion

The diagnosis of psoriasis in our case was clinically based on the finding of erythematous plaques with whitish silvery scales, varied in size at limbs, trunk, scalp more than 10% of body surface area.[4] The diagnosis was around one year before the emergence of esophageal carcinoma.

Cancers that are commonly found in patients with psoriasis included urinary bladder, skin, pharynx and larynx, liver and gall bladder, and colorectum in Taiwan;[10] lymphoma particularly cutaneous T cell lymphoma, lung, and nonmelanoma skin cancers in the Westerners;[8] and cancer of oral cavity and pharynx, liver, pancreas, lung, squamous cell carcinoma of the skin, breast, vulva, penis, urinary bladder and kidney in Sweden. The standardized incidence ratio (95% CI) was 1.37 (1.28 - 1.47).[11] The carcinoma of the esophagus as seen in our patient has been hardly mentioned. Instead of psoriasis, the skin lesion associated with the esophageal carcinoma is palmoplantar keratoderma.[12]

There is no definite explanation for the association between psoriasis and cancer. The radiotherapy and oral medications for psoriasis were not associated with an increased incidence of malignancy in Taiwan. On the contrary, the ultraviolet B (UVB) for psoriasis was associated with decreased incidence of malignancy (adjusted hazard ratio, 0.52; 95% CI, 0.29 - 0.95; $P = .03$)[10] In USA[13], only squamous cell carcinoma of the skin increased in psoriatic patients who exposed to biologics especially tumor necrosis factor-alfa inhibitors as compared with the nonexposure group. The squamous cell carcinoma was found associated with an exposure to 8-methoxypsoralen-ultraviolet-A (PUVA), cyclosporine, and methotrexate.[14] However, psoriasis in our case had never been treated with any immunosuppressants.

Risk factors for esophageal carcinoma include smoking, alcohol, low fiber diet, reflux, nutritional deficit, and genetic predisposition.[15] So far there have been only case reports of other skin lesions found in cases of esophageal cancer; one case with a large plaque with ulceration at abdominal wall,[16] one with generalized skin nodules due to cancer infiltration from the esophagus,[17] one case of dermatomyositis,[18] and one with whole body paraneoplastic pemphigus.[19] One cutaneous lesion that

is associated with squamous cell carcinoma of upper aerodigestive tract including the esophagus is Bazex syndrome or acrokeratosis paraneoplastica. It is described as psoriasiform eruption at palmoplantar keratosis and symmetric onychodystrophy with nose and ear involvement;[20] of which the typical distribution is clearly different from psoriasis.[21]

Conclusions

A 50-year-old Thai male was diagnosed with advanced esophageal carcinoma one year after the diagnosis of severe psoriasis. Although some malignancies are found in psoriatic patients more commonly than the general population, the esophageal carcinoma has never been reported.

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มะเร็งหลอดอาหารที่พบในผู้ป่วยโรคสะเก็ดเงิน: รายงานผู้ป่วย

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โรคสะเก็ดเงินเป็นโรคผิวหนังที่มีการอักเสบเรื้อรังและยังพบว่ามีมะเร็งหลายชนิดที่เกิดในผู้ป่วยกลุ่มนี้บ่อยกว่าในประชากรทั่วไป ได้แก่ มะเร็งต่อมน้ำเหลือง มะเร็งผิวหนังชนิดไม่ใช่เมลาโนมา (Nonmelanoma skin cancer) และมะเร็งปอด แต่ยังไม่เคยมีรายงานพบมะเร็งหลอดอาหารในผู้ป่วยกลุ่มนี้มาก่อน บทความนี้มีวัตถุประสงค์เพื่อนำเสนอพยาธิสภาพของมะเร็งหลอดอาหารที่พบในผู้ป่วยโรคสะเก็ดเงิน ซึ่งเป็นผู้ป่วยชายไทย อายุ 50 ปี มีอาการจุกแน่นลิ้นปี่ กลืนลำบากมากขึ้น อาเจียน และน้ำหนักลดลง 2 กิโลกรัม ในเวลา 1 เดือน ผลตรวจร่างกายมีเพียงรอยแดงขนาด 1 - 3 เซนติเมตร หลายตำแหน่งที่ลำตัวและแขนขา ผู้ป่วยมีประวัติได้การรักษาโรคสะเก็ดเงินด้วยยาชนิดทามา 1 ปี การส่องกล้องหลอดอาหารพบมะเร็งที่ส่วนปลายของหลอดอาหาร ผลตรวจทางพยาธิวิทยาของเซลล์มะเร็งพบว่าเป็นเซลล์มะเร็งที่มีการเปลี่ยนสภาพชนิด Poorly to moderately differentiated carcinoma ผลตรวจเอกซเรย์คอมพิวเตอร์ของทรวงอกและช่องท้องส่วนบนพบว่ามะเร็งหลอดอาหารได้ลุกลามแพร่กระจายไปยังหลอดลมด้านซ้ายและเส้นเลือดแดงใหญ่ รวมทั้งมีต่อมน้ำเหลืองโตหลายตำแหน่ง ซึ่งสอดคล้องกับระยะ T3N2M1 โดยให้การรักษาด้วยการใส่สายให้อาหารเข้าทางกระเพาะอาหาร (Gastrostomy) ตามด้วยรังสีรักษาเป็นการรักษาแบบประคับประคอง และเคมีบำบัด อย่างไรก็ตามมะเร็งหลอดอาหารในผู้ป่วยโรคสะเก็ดเงินยังมีรายงานผู้ป่วยน้อยมาก จึงยังไม่สามารถสรุปได้ว่าทั้งสองภาวะมีความสัมพันธ์กันหรือเป็นเพียงโอกาสที่อาจเกิดภาวะทั้งสองร่วมกัน

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