Case Report

Bazex Syndrome with Hypoalbuminemia and Severe Ascites

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Keywords
Albumin · Ascites · Dermatosis · Paraneoplastic syndrome · Skin lesion

Abstract
Bazex syndrome is a rare paraneoplastic dermatosis. The underlying malignancy frequently is squamous cell carcinoma of the upper aerodigestive tract or cervical lymph nodes from an unknown primary site. We report a 63-year-old man with squamous cell carcinoma of cervical lymph nodes from an unknown primary site. He developed a mass on the right side of his neck, cutaneous lesions diagnosed as Bazex syndrome, hypoalbuminemia, and severe ascites. Right neck dissection was performed. After neck dissection, not only the cutaneous lesions, but also the severe hypoalbuminemia and severe ascites were improved. Bazex syndrome may be associated with hypoalbuminemia and ascites.

Introduction
Bazex syndrome or acrokeratosis paraneoplastica is a rare paraneoplastic dermatosis and is characterized by psoriasiform hyperkeratotic lesions [1]. In most cases, the underlying malignancy is squamous cell carcinoma of the upper aerodigestive tract or cervical lymph nodes from an unknown primary site [2]. For the cutaneous lesions, steroid and topical treatments are not effective, but treatment of the underlying tumor provides relief [3].
We here report a 63-year-old man with Bazex syndrome caused by squamous cell carcinoma of the cervical lymph nodes from an unknown primary site, who had hypoalbuminemia and severe ascites. Moreover, after surgery, not only the lesions, but also the hypoalbuminemia and ascites were improved.

**Case Report**

A 63-year-old man with chronic hepatitis developed a neck mass and diffuse psoriasisform hyperkeratosis and bullae affecting his face, hands, and feet (fig. 1). He had no past or family history of psoriasis or other skin disease. Excisional biopsy of the neck mass was performed, and the pathological diagnosis was squamous cell carcinoma. The primary site could not be determined despite careful examination. He was diagnosed with Bazex syndrome with squamous cell carcinoma of cervical lymph nodes from an unknown primary origin and was referred to our hospital.

On admission, his height was 165 cm, his body weight was 62 kg, his temperature was 37.5°C, his blood pressure was 132/72 mm Hg, his pulse rate was 78 beats/min, his oxygen saturation was 96% on room air, his oral intake was normal, and his serum albumin was 2.3 g/dl. Computed tomography revealed multiple masses on the right side of the neck and mild ascites. He underwent right neck dissection. Pathological examination demonstrated metastases of well-differentiated squamous cell carcinoma of level IIA and III lymph nodes, and extranodal spread was seen in the IIA lymph node. His serum albumin dropped to 1.4 g/dl by 3 days after surgery. At 10 days after surgery, he developed abdominal distension, and computed tomography revealed severe ascites (fig. 2). Ascites aspiration showed clear fluid with a specific gravity of 1.017, and a protein level of 2.0 g/dl; the Rivalta test was negative and cytology was normal.

His ascites improved at 2 months after surgery, with improvement of his lesions. At 5 years after surgery, he had no evidence of recurrence, with the absence of ascites, and his serum albumin was 3.9 g/dl.

**Discussion**

This case highlights two clinical important issues. Bazex syndrome can present with hypoalbuminemia and ascites, and symptoms can be improved by treatment of the underlying tumor.

Hypoalbuminemia is associated with several different diseases, including cirrhosis, burns, malnutrition, nephrotic syndrome, sepsis, and cachexia [4]. This case suffered from chronic hepatitis, but did not progress to cirrhosis. Moreover, he did not show weight loss; we therefore ruled out cachexia. In the case reported here, bullae lesions were accompanied by psoriasisform hyperkeratosis. In addition to burns, bullae of Bazex syndrome may also cause hypoalbuminemia and ascites. Bolognia et al. [2] reported that 16% of such patients developed vesicles, bullae, and crusts, in addition to psoriasisform hyperkeratosis. Additionally, Robert et al. [5] reported a patient with Bazex syndrome who developed ascites, but the association was not described.

In this case, ascites first became severe after surgery, but he improved by 2 months after surgery. This was fortunate, as we may not have opted for cancer treatment if the onset of severe ascites occurred before the treatment.
This case suggests that not only the lesions, but also hypoalbuminemia and ascites can be improved after treatment of the underlying tumor. The mechanism by which Bazex syndrome causes hypoalbuminemia and ascites has not been fully elucidated. Further investigations are necessary to ascertain this mechanism.

Statement of Ethics

We obtained informed consent from the patient for publication.

Disclosure Statement

The authors declare no conflict of interest.

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Fig. 1. Left-hand with psoriasiform hyperkeratosis.

Fig. 2. Severe ascites as indicated by computed tomography.