A case report on efficacy of Abound™ for anti-EGFR antibody-associated skin disorder in metastatic colon cancer

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Abstract

**Background:** Panitumumab is a full human epidermal growth factor receptor (EGFR) monoclonal antibody, an agent for metastatic colorectal cancer therapy. One of the most general adverse events of anti-EGFR monoclonal antibody therapy is skin disorder. At the present time, although prophylaxis of skin disorder is important for continuation of cancer therapy, there are no effective precautionary treatments.

**Case presentation:** A 73-year-old male with sigmoid colon cancer and synchronous lung metastasis was treated with panitumumab, an alone anti-EGFR monoclonal antibody as the third-line therapy. During the nine courses of the therapy, the response was stable disease (SD), but skin disorder gradually appeared obviously (CTCAE version 4.0: Grade 2). After 1 month of administration of Abound™, symptoms of the skin disorder improved (CTCAE version 4.0: Grade 1), thus the antibody therapy could be continued.

**Conclusion:** We report that Abound™ was apparently effective in the treatment for anti-EGFR antibody-associated skin disorder. In the future, Abound™ could be expected as an agent for skin disorder as one of the side effects of colorectal cancer therapy.

**Keyword:** Abound, Anti-EGFR antibody, Skin disorder, Colon cancer

Background

In recent years, remarkable progress has been made in chemotherapy for colorectal cancer. In particular, the treatment for advanced or metastatic colorectal cancer has dramatically improved owing to the development of FOLFOX and FOLFIRI therapies. Furthermore, the introduction of targeted therapy has made the treatment more effective and helpful for patients suffering from colorectal cancer. However, as an example of peripheral neuropathy, a serious major side effect of oxaliplatin (L-OHP), the control of adverse events is difficult for the continuation of cancer therapy. In addition, at the same time, the prevention of skin disorder associated with anti-epidermal growth factor receptor (EGFR) antibody therapy is important to continue the cancer therapy. However, at present, treatment associated with the skin disorder is mainly symptomatic.

Abound™ (ABBOTT JAPAN CO., LTD, Tokyo) constituted by a mixture of β-hydroxyl β-methylbutyrate, glutamine, and arginine (HMB/Gln/Arg). Abound™ previously showed activity for healing bed ulcers, increasing lean body mass (LBM) among patients with cancer cachexia [1,2]. Therefore, our hypothesis considered whether Abound™ is effective for cancer patients with skin disorder. We report that Abound™ was effective for a non-resectable colorectal cancer patient treated with an anti-EGFR antigen panitumumab who had developed skin disorder.

**Case presentation**

A 74-year-old male with sigmoid colon cancer and synchronous lung metastasis (stage IV) underwent high anterior resection and D3 lymphadenectomy. The patient received 16 courses of FOLFOX and bevacizumab (BV)
as first-line therapy, postoperatively. For the reason of disease progression, the patient was followed by BV and FOLFIRI as second-line therapy. The patient’s performance status (PS) went down to PS 1 in accordance with accumulation of the side effect of FOLFIRI therapy, but disease control indicated progression of the disease. Therefore, the patient was started on only panitumumab therapy, an anti-EGFR antigen, in order to wild type the Kras gene type.

An antibiotic agent, minocycline hydrochloride (minocycline), and an external preparation, dexamethasone, were administered from the start of the panitumumab therapy for prophylaxis of the skin disorder.

During the second course of the anti-EGFR antibody therapy, skin disorder appeared on the patient’s facial surfaces and gradually on other parts. The symptomatic treatment was continued; however, at the end of the ninth course of the anti-EGFR antibody therapy, the skin disorder was observed on both the lower limbs as well as on the face remarkably. Thus, Abound™ containing HMB/Gln/Arg was administered with two packs (48 g) a day. The skin disorder on both the lower limbs...
supplementation can be important for those patients with cancer and HIV cachexia, and HMB/Gln/Arg mixture for the treatment of cancer cachexia: a randomised, double-blind, placebo-controlled trial of a β-hydroxy-β-methyl butyrate, glutamine, and arginine mixture for the treatment of cancer cachexia (RTOG 0122). Support Care Cancer 2008, 16:179–1188.

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