Double “Fistula-Patch” Therapy for a Patient with Intestinal and Colonic Enterocutaneous Fistulas

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Introduction

Entero Cutaneous Fistula (ECF) is abnormal connections between the gastrointestinal tract and the skin, which associated with considerable morbidity and mortality. Recent case series suggest a mortality rate of 6 to 33%, with sepsis and complicated malnutrition being the most common causes of death [1]. Despite advances in antimicrobial chemotherapy, nutritional support, and peri-operative critical care, the development of an ECF continues to be a major therapeutic challenge. Specific problems are the control of sepsis, maintenance of adequate fluid and electrolyte balance, provision of adequate and complication-free nutritional support, and skin-stoma care [2].

Nutrition therapy especially enteral nutrition plays a central role in the effective management of ECF [3]. In current literature, several methods have been established generally focusing on wound care and nutrition therapy especially fistuloclysis, which is a safe, reliable, and inexpensive means of providing adequate nutrition support [4,5], but it still needs special medical care.

We had reported our work, which named as “fistula-patch” technique for controlling contamination of intestinal fistula draining into the open abdominal wounds, and applying enteral nutrition. It is a simple method to control Entero Atmospheric Fistula (EAF), with the benefits of avoiding loss of enteric fistula effluent, simplifying of wound management, ceasing of tissue destruction, and affording enteral nutrition application [6]. The “fistula-patch” technique can also be a method to control ECF, and herein we report a case of double “fistula-patch” therapy for a patient with intestinal and colonic ECF.

Case Report

A 39-year-old woman presented with worsening generalized abdominal pain, distention, and emesis was admitted to local hospital. Four months ago she just had a left ovarian resection because of borderline serous cystadenoma. The patient was taken to the operating room and underwent exploratory laparotomy after eight days of conservative treatment for acute abdominal obstructions. Serious intra-abdominal extensive adhesions and distal small intestine adhered to pelvic cavity were found during laparotomy, which may result to intra-abdominal extensive adhesions and distal small intestine adhered to pelvic cavity were found during laparotomy, which may result to intestinal obstructions. Resection of adhesive small intestine and repair of damaged transverse colon were performed. On the 3rd postoperative (PO) day, disruption of abdominal incision and effusion of intestinal juice (output > 0.8 L/day) under incision were found.

Then the patient suffered severe electrolyte imbalances, malnutrition, and local infection. On the 26th PO day, she was transferred to our hospital. An intestinal ECF and a colonic ECF was found under abdominal incision, which then were confirmed by fistulogram (Figure 1). The intestinal and colonic ECFs were treated with our “fistula-patch” technique, respectively. The flexible and soft}

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The definitive surgical management or closure of the fistula is the third and final phase of treatment [7].

When the patient was admitted to our service, she was in the second phase, and the key point of treatment was how to supply enteral nutrition and wound care. We had reported our work which named as “fistula-patch” technique for controlling contamination of intestinal fistula draining into the open abdominal wounds, and applying enteral nutrition in EAF patients. This technique is simple but works. So we designed double “fistula-patch” for two ECFs of the patient. The successful restore of intestinal continuity by the patch was confirmed by barium enema examination and CT examination.

The “fistula-patch” technique could be conducted once peritoneal sepsis has been controlled and small-bowel function has resumed (indicated by reduced nasogastric aspirate and active stoma output). The technique is a simple method to control ECF, with the benefits of avoiding loss of intestinal effluents, simplifying wound care, and applying enteral nutritions. What is more, the patch would remain in situ until definite operations for fistulas. This innovative strategy provides an easier and promising option in the management of ECF, or even multiple ECFs.

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References