



ABSTRACT

Medical nutrition therapy in patients with severe malnutrition, unresectable gastric cancer and percutaneous endoscopic gastrostomy (PEG)

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Background: The yearly burden of stomach cancer is expected to rise to 1.8 million new cases and 1.3 million deaths by 2040. These indicate rises of almost 63% and 66%, respectively, from 2020. This case aim to describe medical nutrition therapy in patients with unresectable gastric cancer and percutaneous endoscopic gastrostomy (PEG).

Case report: A 46 year old male patient was diagnosed with unresectable gastric cancer with gastrostomy feeding, adhesiolysis, appendectomy, hypoalbuminemia (2.1 g/dl), hypokalemia (3.07 mmol/l), risk of refeeding syndrome and severe malnutrition according to GLIM criteria. The patient complained of difficulty in swallowing food, nausea, vomiting, and repeated black stools since 1 month ago. Patient's weight was 46,7 kg, with height 168 cm and BMI 16.56 kg/m². The patient was given enteral nutrition containing 100% hydrolyzed whey protein in peptide form and 70% medium-chain triglicerydes fat, oral albumin supplementation, vitamin B1, vitamin B complex and vitamin C as part of nutritional therapy. The patient experiences weight gain every week.

Discussion: The benefits of whey protein in cancer cachexia is by its antioxidant, anticancer properties, capacity to raise glutathione levels, and its efficacy in managing mucositis during chemotherapy. Alpha-lactalbumin and lactoferrin are two whey protein subfractions that exhibit encouraging anticancer properties. Clinical studies indicate that whey protein supplementation has beneficial effects on cancer patients' immune systems, glutathione levels, gut integrity and nutritional and performance metrics.

Conclusion: Administration of hydrolyzed whey protein and medium-chain triglicerydes fat is beneficial for weight gain in patients with unresectable gastric cancer dan PEG.

Keywords: whey protein, medium-chain triglicerydes fat, unresectable gastric cancer, weight gain, malnutrition

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