Endoscopic Submucosal Dissection for Early Gastric Cancer in a Patient with Myelodysplastic Syndrome

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Endoscopic submucosal dissection (ESD) has been successfully performed in thrombocytopenic conditions such as in patients with liver cirrhosis but successful ESD for early gastric cancer (EGC) in hematologic diseases has rarely been reported. A 52-year-old male patient, who had previously been diagnosed with myelodysplastic syndrome 2 years ago, was admitted to our hospital for ESD of EGC. ESD was performed successfully in this patient after platelet concentrates transfusion on the day of ESD. ESD might be an option for the treatment of EGC in thrombocytopenia due to hematologic diseases when optimal supportive managements are applied. (Korean J Gastroenterol 2015;65:173-176)

Key Words: Stomach neoplasms; Myelodysplastic syndromes; Endoscopy

INTRODUCTION

Endoscopic submucosal dissection (ESD) is now accepted as an alternative to surgery for the treatment of early gastric cancer (EGC). Because the incidence of complications, such as bleeding or perforation, are high, the utility of this treatment modality can be limited in patients with a high probability of bleeding. Although ESD has been successfully performed in thrombocytopenic conditions such as in patients with liver cirrhosis, successful ESD for EGC in hematologic diseases has rarely been reported. In this case, we report a patient who, after being diagnosed with myelodysplastic syndrome (MDS) and accompanying EGC, was successfully treated with ESD.

CASE REPORT

A 52-year-old male patient, who had previously been diagnosed with MDS 2 years ago, was admitted to our hospital for ESD of EGC. As for MDS, he was in the low risk group according to the International Prognostic Scoring System and was under conservative management with regular follow up. On initial gastroscopy, an EGC lesion was noted at the posterior wall of the gastric antrum (Fig. 1A). A well-differentiated ad-
enocarcinoma was confirmed histopathologically. The patient underwent endoscopic ultrasound, which revealed a 1.5×3.0 cm-sized isoechoic mass in the mucosal layer (Fig. 1B). No extragastric metastatic lesions were found by abdominal computed tomography. The patient’s laboratory data showed a hemoglobin level of 8.6 g/dL and a platelet count of 21,000/mm³. Other laboratory values were within normal limits.

Three hours before ESD, six units of platelet concentrates were transfused, and the procedure was performed successfully without any complications (Fig. 2). The entire procedure took 44 minutes. On the next day, laboratory data showed a hemoglobin level of 7.5 g/dL and a platelet count of 77,000/mm³. An additional six units of platelet concentrates were administered to the patient. The resected lesion measured 6.0×4.5 cm. A well-differentiated adenocarcinoma limited to the mucosa was confirmed histopathologically. Intravenous pantoprazole 80 mg was administered before the procedure and then 8 mg/hour for 3 days. Oral feeding was started on the third day of the procedure along with oral pantoprazole 40 mg per day for six weeks. The post-ESD course was uneventful and the patient was discharged on the fifth day.

A follow-up gastroscopy, which was performed eight weeks after ESD, showed complete healing of the lesion (Fig. 3).
After seven months, laboratory data showed a hemoglobin level of 10.3 g/dL and a platelet count of 22,000/mm$^3$. The patient is in good condition without evidence of disease recurrence over 4 years.

DISCUSSION

Bleeding and perforation are common complications of ESD: bleeding is observed in 15.6% of patients, and perforation is observed in 1.2%.$^3$ Despite the high rate of bleeding, this procedure has been performed successfully in patients with bleeding diatheses, such as liver cirrhosis or chronic renal failure.$^4,5$ However, there have been no reports on successful ESD for EGC in patients with thrombocytopenia due to hematologic diseases.

MDS comprise a group of biologically and clinically heterogeneous clonal hematopoietic neoplasms characterized by aberrant myeloid differentiation, dysplastic changes, ineffective hematopoiesis and increasing genomic instability that manifest clinically into peripheral blood cytopenias and variably increased rates of leukemic progression. In the low risk groups, life expectancy is considerable and malignancies of other organs should be treated properly.$^6$

In this case, the patient was diagnosed with MDS, and the patient’s platelet count was 21,000/mm$^3$ on the day of the ESD, but the transfusion of platelet concentrates enabled us to perform the procedure without bleeding. PPI administration also might have contributed to the prevention of post-ESD bleeding.

In conclusion, ESD can be performed successfully in patients with thrombocytopenias due to hematologic diseases such as MDS, when platelet concentrates and PPIs are administered properly.

REFERENCES


