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A case of single incision laparoscopic total colectomy for intestinal neuronal dysplasia type B

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ABSTRACT

INTRODUCTION: Intestinal neuronal dysplasia type B (IND-B) is an infrequent disease of the submucosal plexus of intestine manifesting chronic intestinal obstruction or severe chronic constipation. IND is rarely reported in adult patients.
PRESENTATION OF A CASE: The present study reports on the case of a 36 year-old woman suffering from longstanding chronic constipation and who was diagnosed with severe constipation in more than 20 years. Although she began to take a large amount of stimulant laxatives, such as "senna" and "bisacodyl", constipation symptoms did not improve, she was admitted to our hospital. It was diagnosed with refractory constipation of the medication treatment-resistance, total colectomy with ileorectal anastomosis by single incision laparoscopic surgery (SILS) was performed. The final pathological diagnosis was IND-B.
DISCUSSION: Refractory constipation after medical treatment is often seen in young generation. SILS has benefits of better cosmesis, reduced morbidity, reduced postoperative pain, and reduced length of hospital stay.
CONCLUSION: For the patients with refractory constipation associated with neuropathy such as IND, total colectomy by SILS was very effective.

1. Introduction

Chronic constipation is a common problem all over the world and is usually treated by medication, and surgical treatment has been indicated in case of refractory constipation. Constipation can result from several factors, like person's life style such as low fiber diet, inadequate fluid intake, consumption of some drugs, slow colonic motility, fecal evacuation disorders and combination of above [1]. As a cause of refractory constipation, it mentions malformations of the enteric nervous system. Intestinal neuronal dysplasia (IND), Hirschsprung disease (HD), hypoganglionosis, and ganglioneuromatosis constitute a group of malformations of the enteric nervous system so called intestinal dysganglionosis [2].

Nowadays, IND can be divided into two distinct subtypes. The type A of IND (IND-A) presents mostly in the neonatal period, which comprises 5% of all IND cases and is characterized by congenital aplasia or hypoplasia of the sympathetic innervation, whereas the type B of IND (IND-B) is found in adults as well as in children, which comprises 95% of all IND cases, is characterized by hyperplasia of the parasympathetic submucosal and myenteric plexus [3,4]. Intestinal neuronal dysplasia usually presents in childhood and there have been a few reports in adults. Especially in IND-B cases series, refractory constipation has been reported as the commonest clinical presentation [5,6].

In the present report, we describe our experience of an adult patient with longstanding idiopathic constipation due to IND-B, who underwent single incision laparoscopic (SILS) total colectomy. The work has been reported in line with the SCARE criteria [7].

2. Presentation of case

A 36-year-old female patient presented to our department complaining of longstanding constipation during 20 years. She had received various treatments including some supplements and various laxatives. However, those treatments were ineffective, her symptoms worsened year by year. Eventually, she had taken over

Abbreviations: IND, intestinal neuronal dysplasia; SILS, single incision laparoscopic surgery.

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Fig. 1. Barium-enema showing no obvious mechanical obstruction.

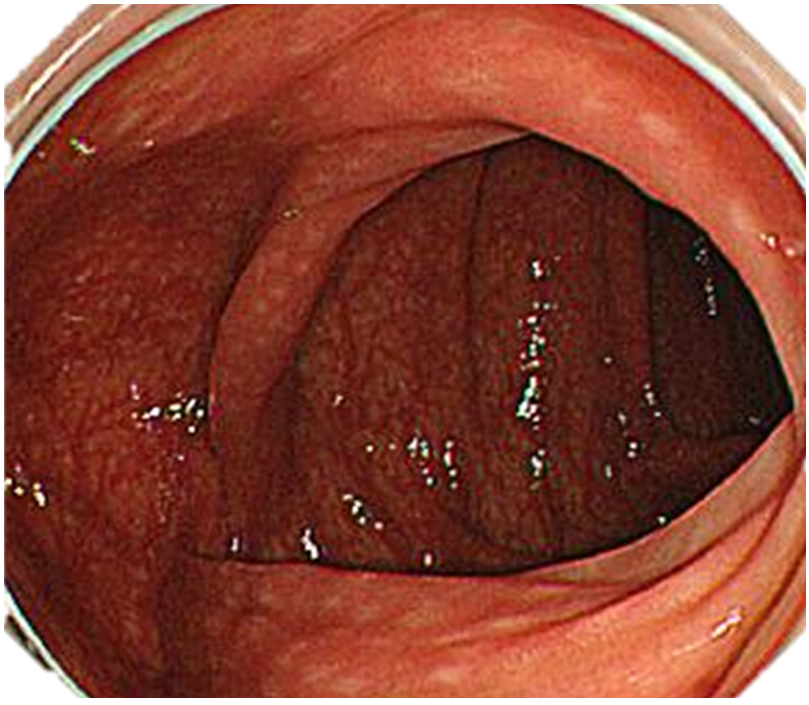

Fig. 2. Colonoscopic examination shows melanosis coli, and reveals no mechanical obstruction.