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NEONATAL SMALL LEFT COLON SYNDROME: A CASE REPORT*

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A newborn infant with neonatal small left colon syndrome is presented, and the relevant literature regarding the etiology of the disorder, its diagnosis and follow-up treatment is reviewed. *Key words: small left colon, colonic dysfunction, neonatal, transient.*

An infrequent cause of intestinal obstruction in the neonate is distal colonic obstruction which commonly results from Hirschsprung's disease [1]. Other causes of intestinal obstruction which are even more rarely encountered are colonic stenosis and atresia, meconium plug, and small left colon syndrome.

Small left colon syndrome (SLCS), first described as a distinct entity by Davis et al[2] in 1974, causes transient colonic obstruction in the newborn infant. To date, approximately 58 cases of SLCS have been reported[1-4]. In this paper, we wish to present the first case of SLCS diagnosed in our hospital, and as far as we know, no other such case has been previously reported in our country.

Case Report

A male infant with a birth weight of 3200 g was born to a multi-parous mother after an uneventful delivery. The newborn was admitted to the Hacettepe University Children's Hospital at 72 hours of age because of increasing abdominal

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distension, failure to pass meconium, and vomiting bilious material. A high blood sugar level had been detected in the mother during pregnancy, but she had received no treatment, except for a diet.

A plain erect abdominal radiograph taken immediately after admission suggested low colonic obstruction (Fig. 1). Barium enema roentgenogram showed a uniformly, narrowed small left colon from the anus to the splenic flexure, at which point there was an abrupt zone of transition (Fig. 2). The entire colon filled readily without evidence of obstruction at any point. Following the barium enema, the patient passed meconium in a large amount. His distension progressively disappeared and no more bowel difficulties were encountered. Oral feeding was started on the following day. After the patient was observed in our neonatal surgical unit for five days, he was discharged in good condition with no defecation problems. The patient was regularly followed up in our out-patient department for one year, and during that period no problems in defecating were evidenced. Barium enemas, which were repeated in the first and third months of the follow-up, revealed progressive normalization of the caliber of the colon in the narrow segment (Figs. 3, 4).

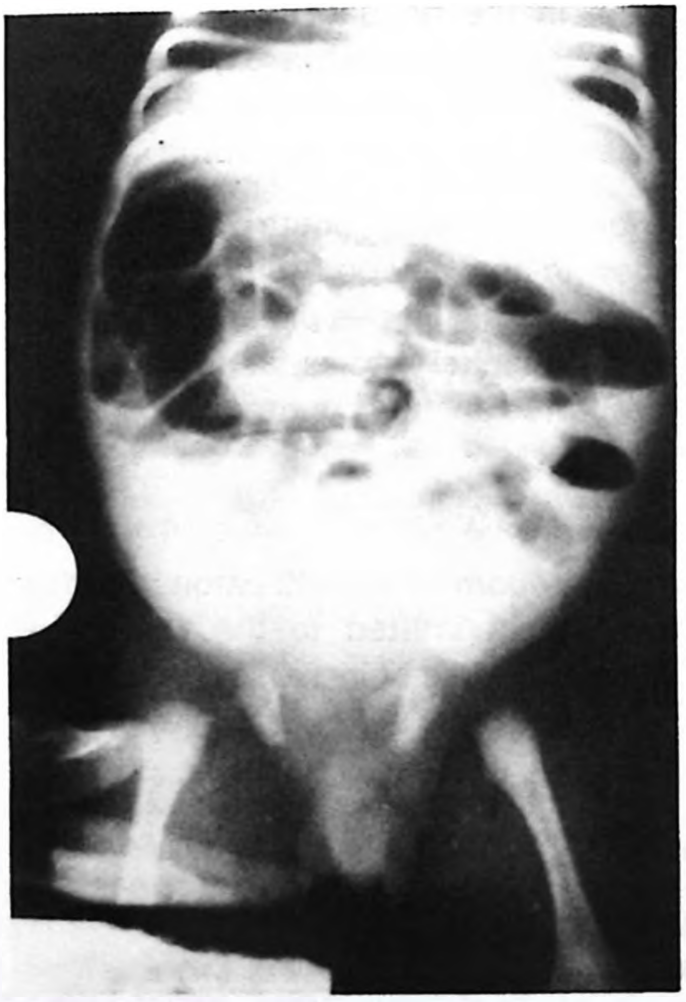

Fig. 1: Plain erect radiogram on admission.

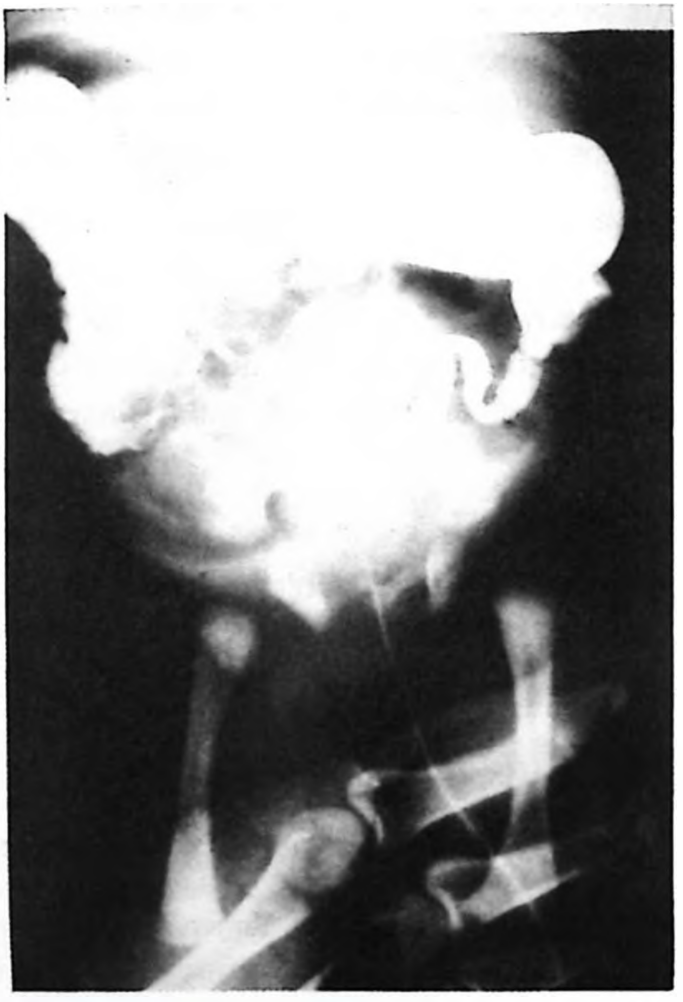

Fig. 2: Barium enema on admission showing the typical appearance of small left colon syndrome.

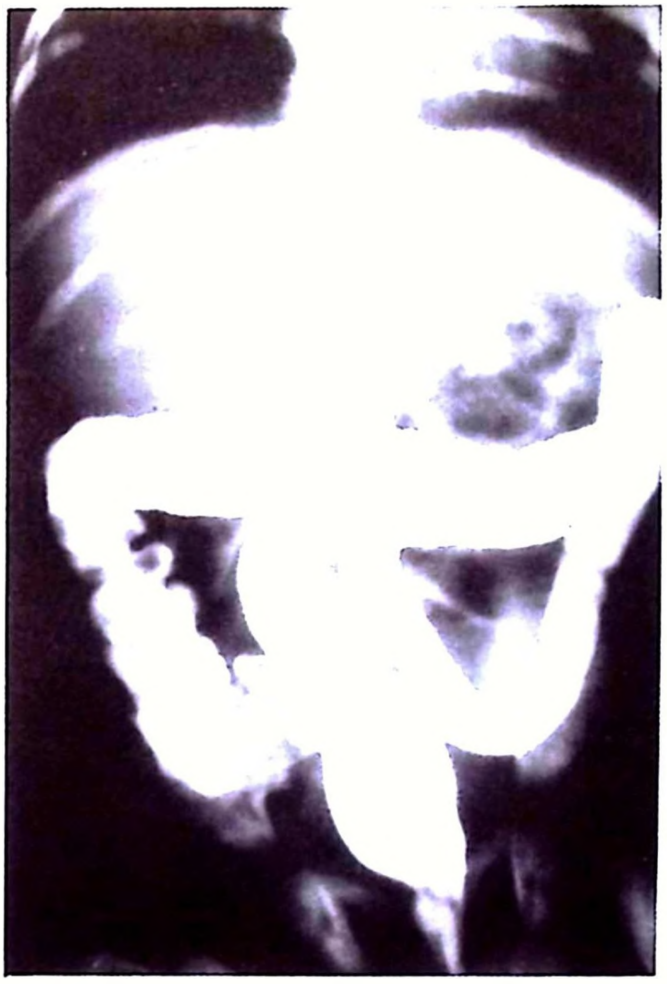

Fig. 3: Barium enema after a month, revealing dilatation of the narrow segment.

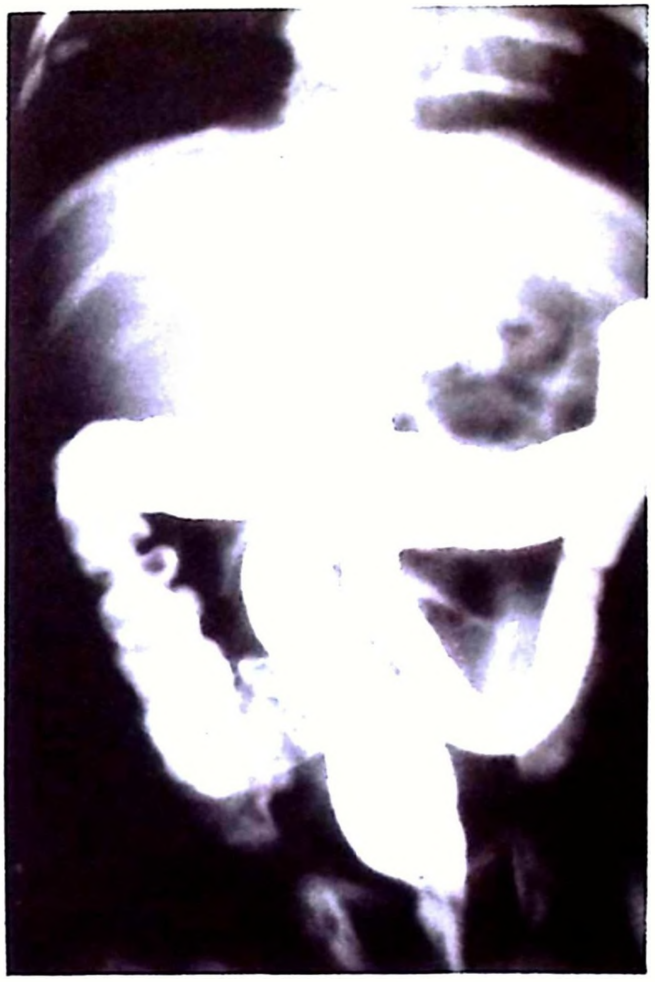

Fig. 4: Barium enema after three months, revealing normal colonic caliber.

Discussion

Although the etiology of neonatal left colon syndrome remains unknown[1-4], a history of maternal diabetes is reported to be present in 50 percent of SLCS patients[5,6], a fact which may shed light on the cause of the disorder. The history of a high blood sugar level in the mother of our patient was a clue in diagnosing SLCS in our patient.

It is difficult to distinguish SLCS from Hirschsprung's disease. In Hirschsprung's disease, the aganglionic segment may extend to splenic flexure in 20 percent of cases[1].

In SLCS, the narrow left colon extending to the splenic flexure is somewhat smaller, and there is an abrupt dilatation without a transition zone at the proximal portion. While in Hirschsprung's disease there is a transition zone, and dilatation at the proximal ganglionic segment may not be very obvious until the age of six weeks[1].

The symptoms of low colonic obstruction are relieved following barium enema in SLCS, but persist in Hirschsprung's disease. Repeated barium enemas reveal widening of the narrow segment in SLCS. If the clinical symptoms and barium enema findings disappear, the patient can be followed safely. However, if any doubt exists, further investigation, such as a biopsy, should be performed to evaluate Hirschsprung's disease[1].

In our patient not only did the clinical but also the radiologic findings disappeared, and therefore, further investigation such as biopsy was not needed. Since there have been patients erroneously diagnosed as having Hirschsprung's disease, to avoid unnecessary surgical procedures, SLCS should always be considered in patients with a history of maternal diabetes and if a narrow segment extending to the splenic flexure is seen during barium enema examination.

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