Megacolon With Abnormality in Location

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Recently it has been accepted that the mechanism of megacolon may be due to defect or degeneration of the nerve cells of myenteric plexus and that dilatation of the colon may be secondary in megacolon (Whitehouse et al. 1948; UEDA et al., 1956). Clinically we have experienced the cases, such as megacolon presenting attack of ileus suddenly in adult without symptom throughout infancy or childhood. In such cases myenteric plexus is usually normal and its cause is not clear, and UEDA et al. (1956) emphasized that they should be named "idiopathic megacolon". The authors had recently a following case of megacolon with anomalous situation of the colon. The purpose of this paper is to outline our case and to discuss the relation between the abnormal location and the function of the colon with reviewing the literature.

REPORT OF CASE

S. N., male, aged 39, a coal miner, was admitted to our hospital on June 13, 1951, because of abdominal distension.

The patient was last well four days ago at which time he noticed the onset of slight abdominal pain with some distension, which has been getting increased gradually with nausea. He had neither defecation nor gas discharge, and was repeatedly given vagostigmin intramuscularly, hypertonic saline intravenously and high pressure enema without good results.

On examination the abdomen was quite distended, with tympany obliterating the normal liver dullness. Neither tenderness nor rigidity was present; nor peristaltic sounds were heard in the abdomen, but rare tinkling sounds were audible.

Because of the persistent and increasing distension of abdomen, on June 13, 1951, a lapanotomy was done by us.

Operative notes were abstracted as follows: The abdominal cavity was occupied by the greatly dilated gigantic colon with hypertrophy of its wall. The affected portion was chiefly the sigmoid colon but iliac portion of the descending colon also. There were found no stenosis, obturation or volvulus at any portion of the colon.

The iliac portion of the descending colon, which was usually devoid of mesentery,

had a short mesocolon, which was continuous with that of the sigmoid.

The greatly dilated and hypertrophied sigmoid colon were not pelvic but supra-pelvic in position; in returning from the left iliac fossa, it crossed the median plane obliquely upwards from left to right, going even as far as the ventral surface of the liver, and then turned back a second time towards the middle of the sacrum, where it joins the rectum at the usual level, thus making a unusually long "sigmoid loop" within the abdomen proper. The sigmoid mesocolon also was doubled up on itself, and there were found slight congestion and white fibrin exudates. Thus, a resection of ca. 30 cm of the involved sigmoid colon with end-to-end anastomosis was done and the abdomen closed.

The histological examination on the resected segment revealed hypertrophy of muscle layers, especially of circular ones. Ganglion cells in the myenteric plexus were found to be normal.

The postoperative course was satisfactory without complication. The patient was discharged on July 1, 1951, in fairly good physical condition. According to his letter, now after 9 years, he has been laboring as coal miner with no complaints.

Comment

The case is a megacolon presenting attack of ileus seddenly in adult without symptoms throughout infancy or childhood, symptoms of which are complicated with markedly anomalous situation.

Adult type megacolon. Such an adult type megacolon, discribed as "idiopathic megacolon" by UEDA et al. (1956) because of unknown genesis of this disease, should be distinguished clearly from the congenital megacolon in true sense. The latter is characterized by the ganglionic defect in the myenteric plexus in the rectosigmoid or rectum and by the onset of symptoms of severe low intestinal obstruction within one or two days of birth. Our case also differs from the elderly group of congenital megacolon, symptoms of which are manifested immediately after birth, thereafter showing the characteristic remission up to middle ages. We must draw a clear line between both on treatment also. As reported by many investigators (Swenson 1948, 1950, 1952; Hiatt, 1951; Lee, 1955; Ueda et al. 1956), a congenital megacolon should be treated by the Swenson's operation by which the dilated sigmoid colon as well as the rectum involved in ganglionic defect in myenteric pleuxus is resected. UEDA et al. (1956) have reported, on the other hand, that for the adult type or idiopathic megacolon such a large scale operation was not necessary but the sympathectomy or conservative treatment might be preferable.

Since the present case was considered to be the adult type megacolon as a result of repeated conservative treatment without good results, a partial resection of the dilated colon alone was performed and favorable results was obtained. We, therefore, firmly believe that the SWENSON's method is not a procedure to be used in

patient with adult type megacolon but the sympathectomy or the partial resection of the dilated colon alone is recommended.

Abnormality in location. The sigmoid colon varies considerably in position and form. SSOSON-JAROSCHEWITSCH (1923) classified the sigmoid colon into four types according to its position and course, and on the basis of this classification, HATTORI (1925) and NISHIYAMA (1955) studied the position and form of the sigmoid colon of the Japanese. MAKINOUCHI (1929) studied it from another point. According to their observations, in most cases, it was placed within the minor pelvic cavity, being suprapelvic in position only in a few cases. On the assumption that all the four types of SSOSON-JAROSCHEWITSCH is normal, the position and form of the sigmoid colon in our case is quite abnormal. Recently, YAMAMOTO (1955) reported a case of the sigmoid colon with anomalous situation, which was found in autopsy, quite similarly with our case.

It is not clear whether or not such an abnormality in location may be related to the dysfunction of megacolon. However, the congenital malposition as seen in our case might exert vicious influences upon the sigmoid colon and its mesentery and give rise to the hypo- or dysfunction of the large bowel. It was quite reasonable, from this viewpoint, that the morpholgic correction by the partial resection of the affected sigmoid colon was done in the present case.

SUMMARY

A case of the adult type megacolon with abnormality in location is described. The partial resection of the affected sigmoid colon was done with favorable results. The relation between the malposition and the dysfunction of the colon was discussed.

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