Abstract

Introduction

Descending colon and sigmoid colon are parts of the large intestine. The descending colon is situated on the left side of the posterior abdominal wall and the sigmoid colon is situated in the pelvis. The descending colon is retroperitoneal, whereas the sigmoid colon is suspended by a sigmoid mesocolon. This paper reports a case of displaced sigmoid and descending colons.

Case Report

During regular dissection classes of the abdomen, a congenital anomaly of the descending colon and sigmoid colon was noted. The descending colon began as a continuation of the left colic flexure and gradually moved to the right on its downward course to reach the midline. It continued as sigmoid colon at the level of the 5th lumbar vertebra. Its upper part gave attachment to the upper part of the mesentery of the small intestine and the lower part was retroperitoneal. It was covered in front by the coils of the small intestine. The sigmoid colon occupied the median position in the lesser pelvis. It completely filled the rectovesical pouch and covered the superior aspect of the urinary bladder (Figures 1, 2 and 3). The sigmoid mesocolon was fan-shaped and was attached obliquely to the posterior wall of the abdomen and pelvis. It extended from the left iliac fossa and area immediately above that were empty (Figure 1). The descending colon began as a continuation of the left colic flexure and gradually moved to the right on its downward course to reach the midline. It continued as a sigmoid colon at the level of the 5th lumbar vertebra. Its upper part gave attachment to the upper part of the mesentery of the small intestine and the lower part was retroperitoneal. It was covered in front by the coils of the small intestine. The sigmoid colon occupied the median position in the lesser pelvis. It completely filled the rectovesical pouch and covered the superior aspect of the urinary bladder (Figures 1, 2 and 3). The sigmoid mesocolon was fan-shaped and was attached obliquely to the posterior wall of the abdomen and pelvis. It extended from the left iliac fossa and area immediately above that were empty (Figure 1).

Introduction

The descending colon and the sigmoid colon are the parts of the large intestine. The descending colon is about 25 cm and descends along the left hypochondriac and lumbar regions. After reaching the iliac fossa, it curves downwards and mediially and ends in the sigmoid colon in front of the left iliacus muscle. The sigmoid colon, also known as pelvic colon, is about 40 cm in length and first descends in contact with the left pelvic wall, then crosses the pelvic cavity between the rectum and the urinary bladder and turns behind and downwards to end in the rectum at the third piece of the sacrum. Though the anomalous positions of the sigmoid colon are well-known, the variations in the position of the descending colon are very rare. Both the descending colon and sigmoid colon are known to possess redundant loops. Descending colon rarely possesses a mesocolon and this is due to the failure of disappearance of the embryonic descending mesocolon. Sigmoid colon also might vary in length, may be right-sided, and may form redundant loops. Variations in the position and length of the descending and sigmoid colons may produce difficulties in radiological diagnosis and instrumentation into them. They may also form volvulus or result in some other functional disturbances in the neighbouring structures. In this report, we discuss the possible clinical and functional implications of the anomalous positions of the descending and sigmoid colons.

Discussion

The sigmoid colon is the most variable part of the large intestine in terms of length and position. But the variations in the position of the descending colon are not so common. In a condition called situs inversus, both sigmoid and descending colons
Rarely, as a developmental error, the descending mesocolon persists. This might result in intestinal obstruction, formation of volvulus, or internal hernia. In an autopsy study conducted recently, a high incidence of redundancy of the sigmoid colon was noted. A study on the variation in volume and position of the pelvic organs also revealed that the sigmoid colon is the most variable pelvic organ in terms of volume and position. When the sigmoid colon and transverse colon are too long, they may coil around and form a knot. One such case has been reported recently. Displacement of the descending colon to the right, specifically to the midline, is an extremely rare variation and in our literature survey, we could not find a similar case reported before. The mesentery of the small intestine being attached to the upper part of the descending colon makes the case more interesting and unique. The descending colon, when loaded with faeces, can compress the aorta, leading to altered blood supply to the lower part of the body in this case. Since the mesentery was attached to it and it was totally behind the jejunum and ileum, the peristaltic movements of the descending colon might get altered. The sigmoid colon was filling the pelvic cavity in the current case and the sigmoid mesocolon was right-sided. Such a sigmoid colon might press upon the bladder especially when the colon is full of faeces. This might increase the urinary frequency. Radiologists and surgeons must be well aware of these variations. These variations might cause problems in colonoscopy and sigmoidoscopy. Since the sigmoid mesocolon was connected to the mesoappendix and the sigmoid colon was close to the appendix, movements of the sigmoid colon might increase the chances of rupture of the infected appendix in this case.

**Conclusion**

The variations being reported here have tremendous clinical and functional implications. The median...
Position of the descending colon is extremely rare and it might get compressed by the jejunum and ileum or it might compress the aorta which is situated behind it. Knowledge of the concurrent variations of the descending colon and sigmoid colon is of importance to gynaecologists, radiologists and surgeons in general.

References