Case Report

Long coeliac trunk and its low origin and unusual branches: a case report

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Abstract

Introduction
Coeliac trunk supplies the derivatives of the foregut. Knowledge of its variations is useful for surgeons, gastroenterologists and radiologists. We report a case of low origin, unusual length and branches of coeliac trunk.

Case report
The coeliac trunk had a low origin (at the level of L2 vertebra) and was 5 cm in length. It gave origin to the right and left inferior phrenic arteries and terminated by giving splenic, left gastric and common hepatic arteries.

Conclusion
Unusual length and branches of coeliac trunk might cause confusions in diagnostic and surgical procedures.

Introduction
The coeliac trunk (CT) is the first ventral splanchnic branch of the abdominal aorta. It supplies the derivatives of the foregut. It originates from the ventral aspect of the abdominal aorta at the level of junction between T12 and L1 vertebrae. It is about 1.5–2 cm in length. It usually terminates by dividing into three main branches: left gastric, common hepatic and splenic arteries. Reported variations of the CT include its congenital absence, bifurcation and presence of collateral branches.

Knowledge of variations in the relations, branching pattern and distribution of the CT is useful in planning and performing radiological interventions and surgeries in the supracolic compartment of the abdomen. This paper discusses a case of a long CT and its low origin and unusual branches.

Case report
During regular dissection classes for undergraduate medical students, we found variations in the upper abdominal arteries in an adult male cadaver aged approximately 65 years. The CT was 5 cm in length and took its origin opposite the second lumbar vertebra. It ran upwards behind the stomach and trifurcated into splenic, common hepatic and left gastric arteries. Before its trifurcation, close to its origin, it gave rise to the right and left inferior phrenic arteries (Figures 1 and 2). The inferior phrenic arteries ran upwards through the coeliac plexus, in front of the corresponding crus of the diaphragm to reach and supply the diaphragm. There were no variations in the course and distribution of the major branches of the CT.

Figure 1: Dissection of the upper abdominal vessels. The stomach has been reflected upwards. (1 – coeliac trunk; 2 – splenic artery; 3 – common hepatic artery; 4 – left gastric artery; 5 – hepatic artery proper; 6 – gastroduodenal artery; 7 – abdominal aorta; 8 – superior mesenteric artery; 9 – portal vein; 10 – left kidney; 11 – third part of duodenum; 12 – stomach; 13 – right lobe of liver)
Conclusion

The knowledge of possibility of a long CT with a low origin may be very useful in avoiding erroneous radiological procedure and in reducing risk of its injury during upper abdominal surgeries.

References