

## A CASE OF EXCESSIVE TORTUOSITY OF THE LIENAL ARTERY

Sirbu Aureliu<sup>1</sup>, Creciun Nicolae<sup>1</sup>, Budaretschi Ion<sup>1</sup>, Babuci Angela<sup>2</sup>

<sup>1</sup>Faculty of Medicine no.1, *Nicolae Testemitanu* State University of Medicine and Pharmacy, Chisinau, Republic of Moldova

<sup>2</sup>Department of Anatomy and Clinical Anatomy, *Nicolae Testemitanu* State University of Medicine and Pharmacy, Chisinau, Republic of Moldova

**Introduction:** The lienal artery is characterized by a wide range of variations including variants of origin, topography, course and branching pattern. In over 90% of cases, it derives from the coeliac trunk, but it may also arise directly from the abdominal aorta and other arteries. Preponderantly, this artery runs along the superior margin of the pancreas, but also an intra-parenchymatous, a retro- or antero-pancreatic course has been reported in the literature. The lienal artery is one of the most tortuous branches of the coeliac trunk. Its excessive tortuosity might cause aneurysms formation, vascular wall dissection, stenosis, thrombosis and lienal infarction.

**Material and methods:** Anatomical dissection of a formalized cadaveric sample was performed at the Anatomy and Clinical Anatomy Department. The origin, topography, course, branching pattern, shape and length of the lienal artery loops were determined.

**Results:** During routine anatomical dissection an excessive tortuosity of the lienal artery, originating from the coeliac trunk, with a zigzag arterial course, arranged into six loops, was observed. Each loop consisted of a descending and ascending limbs, with sharp angulations of similar shape and size. The inferior angulations of the first and second loops were sharper, surrounded by dilations and narrowing. The length of the loops varied between 44-56 mm. The first loop was the shortest one and the last two loops were the longest. The length of the first loop was 44 mm with equal ascending and descending limbs. The second loop had a length of 50 mm, its ascending limb (AL) – 22 mm and descending limb (DL) – 28 mm; the third loop – 55 mm (AL – 28 mm, DL – 27 mm); the fourth loop – 53 mm (AL – 27 mm, DL – 26 mm); the fifth loop – 56 mm (AL – 26 mm, DL – 30 mm); the sixth loop – 56 mm (AL – 30 mm, DL – 26 mm). Within the first three loops, atheromas were revealed. Before entering the lienal parenchyma, the lienal artery divided into 4 terminal branches.

**Conclusion:** The excessive tortuosity of the lienal artery might be the cause of surgical errors and iatrogenic injuries. It is also dangerous in terms of aneurysms formation with arterial wall ruptures and abdominal bleeding, or thrombus formation and lienal infarction.

**Keywords:** splenic artery, tortuosity, variability