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Dunbar syndrome

Rapid Communication

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A 30-year-old woman (Figure 1) complained about postprandial and sports related spasmodic pain in the upper abdomen. Physical exam, vital signs and blood count was without pathological findings. The patient underwent duplexsonography (Figure 2) and magnetic resonance imaging (mri) examinations including magnetic resonance angiography of the aortic vessels of the abdomen (Figure 3). A hooked shaped stenosis of the coeliac trunk was found in duplexsonography and in mri. This stenosis is caused by the median arcuate ligament (Figure 3, arrow). Therefore, the Dunbar syndrome is also called median arcuate ligament syndrome (MALS), Coeliac Artery Compression Syndrome (CACS) or Harjola-Marable-syndrome [1]. Different anatomic reasons may induce a vascular compression syndrome of the coeliac trunk [2], including but not limited to compression by the median arcuate ligament of the diaphragma [3], a fibrotic coeliac ganglion [4], coeliac aneurysm dilating against the coeliac ganglion [5] and a hypertrophied coeliac ganglion [6]. In some people the median arcuate ligament has a low insertion at the aortic hiatus and may cause ischaemic-type epigastric pain by compressing the coeliac trunk. The hooked shape configuration of the stenosis combined with younger aged and thin people helps to differentiate this syndrome from arteriosclerotic diseases. In case of a severe and symptomatic compression of the coeliac trunk the regular surgical therapy is performed laparoscopically by dividing the ligament in order to decompress the coeliac artery and/or resecting the coeliac ganglion. These procedures are guided and controlled by duplexsonography. If this procedure failed laparatomy and surgical reinsertion of the celiac trunk is

Figure 1. 30 year old female patient suffering from postprandial and sports related spasmodic pain in the upper abdomen. Used with permission of the patient.

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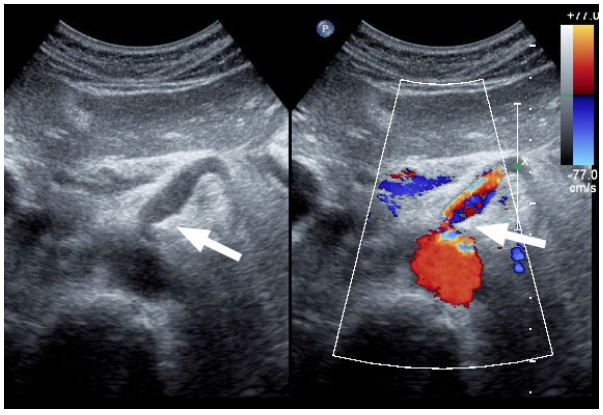

Figure 2. Hooked shaped stenosis (arrows) of the coeliac trunk in colour duplex sonography.

helpful [7]. In this present case the patient declined surgical therapy at this time, she decided trying additional gymnastic exercises first.

In conclusion the diagnosis of the dunbar syndrome has to be done by exclusion because several people have different degrees of coeliac artery compression without symptoms. Typical postprandial or sports related epigastric pain in younger patients may lead to image guided diagnostic procedures as duplexsonography, MRI or CT. More common reasons as gastric ulcer, arterioslerotic occlusion of the visceral arterys and lymphoma have to be excluded first.

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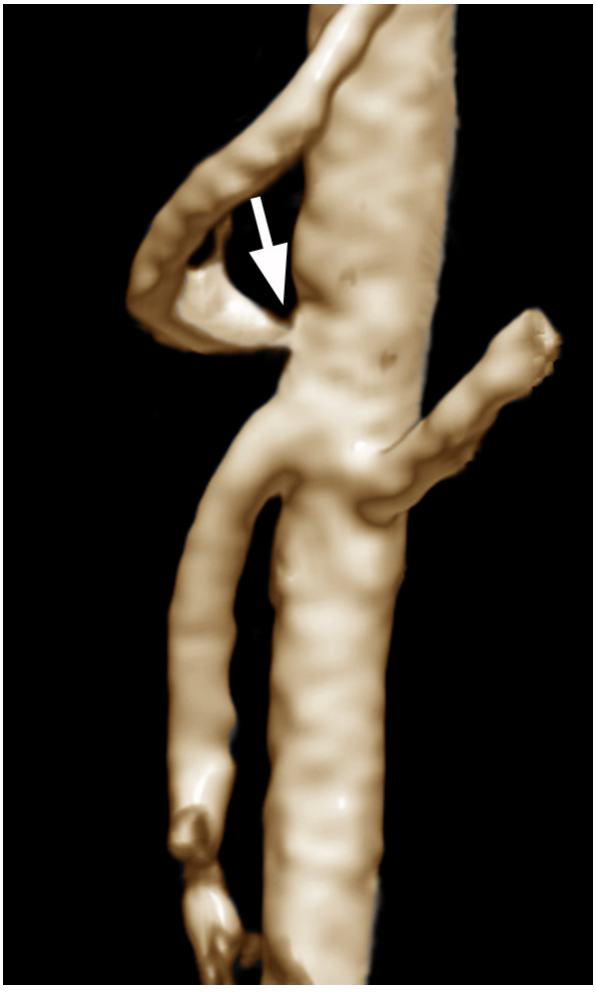

Figure 3. Stenosis of the coeliac trunk (arrow) in magnetic resonance angiography.

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