Riedel's Lobe: Did you know these facts?
Published on 20.08.2011

DOI: 10.1594/EURORAD/CASE.9437
ISSN: 1563-4086
Section: Abdominal imaging
Area of Interest: Abdomen Case Type: Anatomy and Functional Imaging
Authors: Arora A, Mukund A, Thapar S, Jain
Department of Radiodiagnosis, Institute of Liver and Biliary Sciences, New Delhi, India
Patient: 21 years, male

Clinical History:
A 21-year-old male patient was imaged following splenectomy and spleno-renal shunt creation.

Imaging Findings:
Incidental note was made of an elongated tongue-like projection from the right lobe of liver extending almost up to the level of iliac crest (Fig. 1-4). Review of pre-operative images also confirmed the presence of this normal but uncommon variant.

Discussion:
The present case displays the characteristic appearance of Riedel’s lobe. A PubMed search pertaining to the clinical relevance of this infrequently encountered normal-variant revealed many interesting facts, which are presented herein.

Riedel's lobe is a normal anatomical variant referring to a tongue-like projection extending caudally from the right lobe of liver lateral to the gallbladder. It was first described by Riedel, a French surgeon in 1888. Although believed to be an accessory lobe, truly speaking it is not a true-accessory lobe but a downward projection of the right hepatic-lobe [1, 2]. It has been observed more frequently in females, its prevalence being dependent on age-related changes in liver size and skeletal shape. Its incidence in the general population varies with a considerably wide range from 3.3-31% [2].

It is imperative for the clinician and radiologists to know about this normal-variant, as the lobe may enlarge, sometimes extending into the right iliac fossa, and mistaken for pathological enlargement of the liver or a right-renal-mass on clinical examination [1-3, 14].

Another clinical significance of Riedel's lobe for the radiologist is to carefully examine the liver up to the lower-most tip as pathologies such as hepatocellular carcinoma and metastasis may sometimes affect only the lowest-part of the Riedel's lobe [7, 8, 2]. It is therefore of utmost importance to cover the entire liver in the scan-field.

At times, this lobe may show only a narrow-attachment to the right-lobe acting as a pedunculated lobe. Cases of torsion and infarction of Riedel's lobe and accessory hepatic lobes have been reported [4, 9-12]. Hence, radiologist should be aware of this possibility and in appropriate settings should consider this diagnostic possibility.

Recent literature highlighted a left-sided Riedel's lobe which manifested with gastric outlet obstruction. On
exploratory laparotomy a 10x6cm-sized tongue-like lobe from left-lobe of liver was seen extending to the umbilicus and compressing the prepyloric area of the stomach [6].

The presence of Riedel's lobe can be challenging for the nephrologist performing laparoscopic interventions[5, 13]. Riedel's lobe chiefly presents two special technical concerns. It limits intraperitoneal access and limits the hilar exposure. For intraperitoneal access, an initial supraumbilical approach, or possibly an open approach, has been suggested to lessen the risk of liver injury. For renal and hilar exposure, it is suggested that the right lateral liver attachments should be taken down so that the hepatic lobe can be retracted medially instead of in the conventional cephalad direction[5].

**Differential Diagnosis List:** Riedel's lobe, Accessory lobe, Hepatomegaly

**Final Diagnosis:** Riedel's lobe

**References:**


Figure 1

Description: A tongue-like projection from the right lobe of liver can be well appreciated on this coronal CT image. Origin:
Description: An elongated tongue-like projection is seen from the right lobe extending caudally up to the level of pelvic inlet. Origin:
Description: Sagittal CT image superiorly delineates the Riedel's lobe. Origin:
Description: Riedel's lobe: an elongated tongue-like projection from the right lobe of liver. Origin: