Double-domed horizontal fissure

İsmail Mikdat Kabakuş, Zeynep Atçeken, Orhan Macit Ariyürek

From the Department of Radiology (I.M.K., O.M.A. ✉ macit.ariyurek@gmail.com), Hacettepe University School of Medicine, Ankara, Turkey; the Department of Radiology (Z.A.), Koç University School of Medicine, İstanbul, Turkey.

We read with interest the article entitled "Volumetric thin-section CT: evaluation of pulmonary interlobar fissures" by Guan et al. (1) in the November-December 2015 issue of *Diagnostic and Interventional Radiology*. The authors gave detailed information about interlobar fissures, their incompleteness, relationship to vascular structures, CT appearance, and defect location. The interlobar fissures and their variations are important for identifying pulmonary lesion locations, evaluating disease progression, and selecting appropriate surgical or interventional approaches. Therefore, it is

important to know any detail about fissural anatomy and its variations. All horizontal (minor) interlobar fissures have been described as having one dome in the literature (2, 3). We would like to contribute by noting that they may also have a double dome. During the last five-year period, out of approximately 35 000 thorax CT scans, we came across five patients with double-domed horizontal fissure (Figs. 1, 2). Those patients did not have any abnormality that might change fissural anatomy like atelectasis or fibrosis. Although double-domed horizontal fissure is a very rare entity, it is important to keep it in mind to avoid misinterpretation.

References

1. Guan CS, Xu Y, Han D, Chen JH, Wang XL, Ma da Q. Volumetric thin-section CT: evaluation of pulmonary interlobar fissures. *Diagn Interv Radiol* 2015; 21:466–470. [\[CrossRef\]](#)
2. Berkmen YM, Auh YH, Davis SD, Kazam E. Anatomy of the minor fissure: evaluation with thin-section CT. *Radiology* 1989; 170:647–651. [\[CrossRef\]](#)
3. Ariyurek OM, Karabulut N, Yelgec NS, Gulsun M. Anatomy of the minor fissure: assessment with high-resolution CT and classification. *Eur Radiol* 2002; 12:175–180. [\[CrossRef\]](#)

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Figure 1. A 35-year-old male patient. Axial CT image, 1 mm slice thickness, shows double-domed horizontal fissure (empty arrows, anterior dome; solid arrows, posterior dome; curved arrows, oblique fissure).

Figure 2. a, b. A 74-year-old male patient. Axial CT image 1 mm slice thickness (a) and sagittal oblique 2 mm reformatted CT image (b) show double-domed horizontal fissure (empty arrows, anterior dome; solid arrows, posterior dome; curved arrows, oblique fissure).