Clinical History:

A 68-year-old male patient presented to an outpatient clinic with swelling in the right side of the groin. The swelling was reduced after voiding.

Imaging Findings:

Ultrasound scan of the right inguinal region was inconclusive, as a hernia could not be provoked. From anamnesis, it was suspected that the patient had inguinal herniation. Therefore, a CT scan with Valsalva manoeuvre was requested. Axial and sagittal reconstructed images (Fig. 1 and 2, respectively) of non-contrast CT of the abdomen showed the presence of a right inguinal hernia containing the bladder and the sigmoid colon and a left inguinal hernia containing fatty tissue.

Discussion:

Inguinal bladder hernia, or herniation of the urinary bladder, is uncommon. The bladder is involved in 1-4% of all inguinal hernias, but for men older than 50 years of age there is a 10% risk of having inguinal bladder hernia [1]. The bladder can be involved in the hernia to different degrees. In 1951, Levine [2] described a scrotal cystocele case, where a large portion of the bladder was herniated with descent into the scrotum. The patient may present with urinal retention or double voiding. Other possible symptoms include dysuria, frequency, urgency, nocturia, and haematuria. These symptoms, however, can also be caused by other pathology such as for example prostatic hypertrophy or urinary infections [3, 4]. As most patients have no specific symptoms when the urinary bladder is involved in the hernia, it is discovered only in 10% of cases prior to operation and less than 20% during surgical intervention [5, 6]. When the patient has a hernia accompanied with clinical features such as reducible groin bulge or local discomfort, no further radiological examination is required. When there is suspicion of recurrent groin hernia, it is recommended to combine ultrasound and clinical examinations [7]. If there is still doubt after the combined examination, and the patient is aged >50 years, or has lower urinary tract symptoms, the patient should have a CT scan in addition, since proper identification of the hernial content helps lower the risk of surgical complications such as damage to the urinary bladder [7, 5].

Written informed patient consent for publication has been obtained.

Differential Diagnosis List: Right inguinal hernia containing bladder and sigmoid colon, Cystocele, Urinary bladder
diverticulum, Ureteral hernia

**Final Diagnosis:** Right inguinal hernia containing bladder and sigmoid colon

**References:**


**Figure 1**

*Description:* Axial image: Anterior wall of the bladder (marked by red arrow) and sigmoid colon extends inferiorly and towards the right side. *Origin:* © Department of Radiology, Zealand University Hospital/ Koge 2019.
Description: Sagittal reconstructed image: Anterior wall of the bladder (marked by red arrow) and sigmoid colon are in the right inguinal hernia. Origin: © Department of Radiology, Zealand University Hospital/ Koge 2019.