Clinical History:

An otherwise healthy patient presented with macroscopic haematuria. A renal tumour was suspected and the patient was referred to the urology department.

Imaging Findings:

Contrast-enhanced CT of thorax and abdomen was performed. A small tumour was seen in the cortex of the left kidney (Figure 1). The morphology of the tumour was suggestive of renal cell carcinoma. There was no involvement of the renal vein. No liver or lung metastases were detected. As an incidental finding a fat containing non-enhancing process (negative HU-values) was seen adjacent to the right and left atria (Figure 2a-c). The lesion was well-marginated without any solid components. There was no sign of tumour invasion into the atria. However, the lesion compressed the right atrium and was thought to represent a lipoma arising within the pericardial cavity.

Discussion:

Primary tumours of the heart and pericardium are rare. Lipomas account for 10% of primary cardiac tumours [1]. Pericardial lipomas usually remain asymptomatic. Most are detected incidentally during autopsies or imaging procedures [2]. Very large pericardial lipomas can cause cardiac symptoms, owing to the space-occupying effect of the tumour within the pericardium [3]. Symptomatic pericardial lipomas should be resected.

Different imaging modalities such as CT, MRI and echocardiography can detect pericardial lipomas [1, 4]. On CT and MRI lipomas present as well-marginated lesions containing fat, as was seen in the present case. If solid areas are present inside the fatty lesion, malignant transformation should be ruled out. Pericardial tumours may complicate coronary bypass surgery [4]. It is therefore important to report these benign lesions.

Differential Diagnosis List: Pericardial lipoma, Pericardial effusion, Liposarcoma

Final Diagnosis: Pericardial lipoma

References:

Description: Contrast-enhanced CT of the upper abdomen shows a small tumour in the left kidney.
Origin: Nielsen YW. Dept. of Radiology. Copenhagen University Hospital Herlev, Denmark.
**Figure 2 a**

**Description:** Axial contrast-enhanced CT showing a low density mass adjacent to the atria. **Origin:** Nielsen YW. Dept. of Radiology. Copenhagen University Hospital Herlev, Denmark.
**Description:** Axial contrast-enhanced CT showing low density mass adjacent to the right and left atria. There is compression of the right atrium. **Origin:** Nielsen YW. Dept. of Radiology. Copenhagen University Hospital Herlev, Denmark.
Description: Coronal contrast-enhanced CT showing the low density mass compressing the right atrium. Origin: Nielsen YW. Dept. of Radiology. Copenhagen University Hospital Herlev, Denmark.