

# RENAL CARCINOMA NEEDLE TRACT SEEDING IN TWO DOGS



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## INTRODUCTION

Two clinical cases of needle tract implantation of neoplastic cells on the abdominal wall after ultrasound fine needle aspiration are discussed. Primary tumor was renal carcinoma. All nodules grew up along the needle tract.

## MATERIAL AND METHODS

Case n.1 A 10-year-old male, Bracco Italiano dog, showed on abdominal ultrasound (US) examination an irregular inhomogeneous complex mass in the caudal pole of the right kidney (4 cm in diameter). The mass was aspirated with a 22 g needle three times. On cytology, a population of cohesive epithelial cells with moderate atypia was described. Due to renal vein thrombosis detected on CT, surgery was not performed. Six months later, a US check revealed multiple hypoechoic nodules (1,5 cm), multilobulate, inside the abdominal wall (figure 1).

Case n.2 A 8-year-old male WHWT was referred for a right renal mass. After US and total body CT study, fine needle aspirate (5 times, 22 g) was performed. Nephrectomy was performed and histological diagnosis was renal carcinoma. Six months later, US showed the presence of three hypoechoic nodules, well defined margins, 1 cm in size, in the abdominal wall along the needle passage (figure 2).

## RESULTS

Case n.1: Fine needle aspirated were collected and cytology showed neoplastic epithelial cells highly suspicious for metastatic renal carcinoma.

Case n. 2 : Nodules were surgically removed, and metastasis were confirmed on histology.

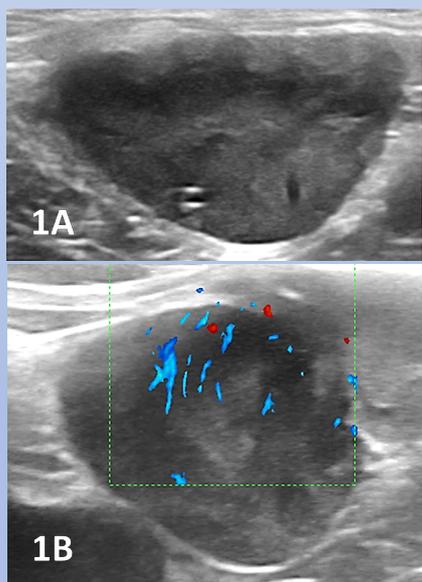


FIG. 1A-1B: ultrasonographic image of an hypoechoic, homogeneous, Vascularized nodule inside the abdominal wall (case n. 1).

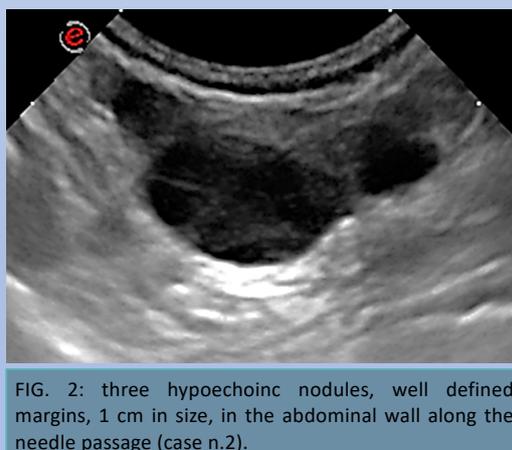


FIG. 2: three hypoechoic nodules, well defined margins, 1 cm in size, in the abdominal wall along the needle passage (case n.2).

## CONCLUSIONS

Needle tract seeding is rare. To our knowledge the seeding of renal carcinoma cells after FNA on the abdominal wall has never been reported in veterinary medicine.