

Invasive oncoradiology in the diagnosis of breast tumor. Case report

Gábor Szalai¹, László Kaiser², Endre Kálmán²

¹Department of Radiology, ²Department of Pathology, University School of Medicine, Pécs, Hungary

In the haemorrhage discharging breast of an elder woman no tumor mass could be detected by mammography. An obstruction in a duct without tumor mass was detected by ductography. Fine needle aspiration biopsy was performed in the area close to and behind the obstruction. The cytopathological diagnosis was "Papilloma seu carcinoma papillare". Surprisingly, the same duct filled completely during ductography after biopsy. After ultrasound-guided wire localization, the success of surgical treatment was confirmed by histology

Key words: breast neoplasms-diagnosis-pathology; mammography, ductography; biopsy, needle, fine-needle aspiration biopsy (FNAB), wire localization

Introduction

Haemorrhage discharge of the mamilla is frequently caused by papilloma or papillary carcinoma.^{1,2} Ductography is generally accepted procedure to assess the localization and extension of tumor.³

Case Report

A 62-year old woman was referred to the hospital because of the haemorrhage discharge of the left breast. There was no palpable abnormality. A papillary growth was detected cytopathologically and the cells in the dis-

charge indicated to the presence of a cystic lesion. No tumor could be identified by mammography (Figures 1a,b). The contrast media filled up a short, wide part of a duct during ductography (Figures 2a,b). The diameter of this retroareolar part of the duct, measured by sonography, was 2.8 mm and there was not any solid lesion visible (Figure 3). From the area immediately behind the obstruction, US-guided aspiration biopsy was performed (Figure 4). Papillary neoplasm was detected by cytology. One month later (in the meanwhile, discharging stopped), ductography was repeated. The ducts of the upper-outer quadrant were filled-up with contrast media. A part of the tumor closing the central duct was removed by biopsy, and the total obstruction was thus eliminated. Multiple filling defects were seen intraductally (Fig-

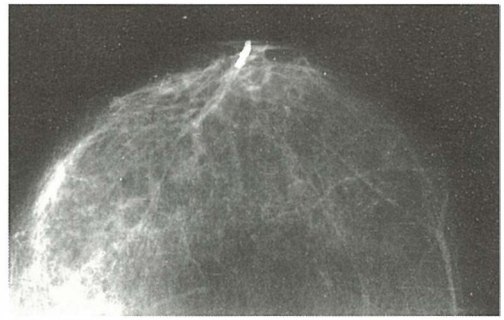
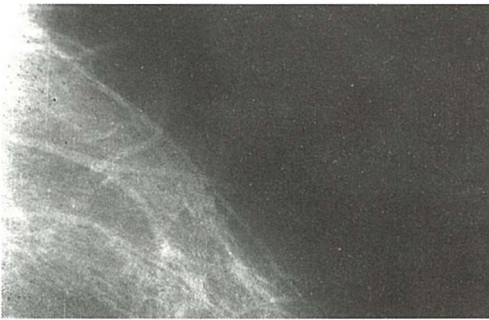
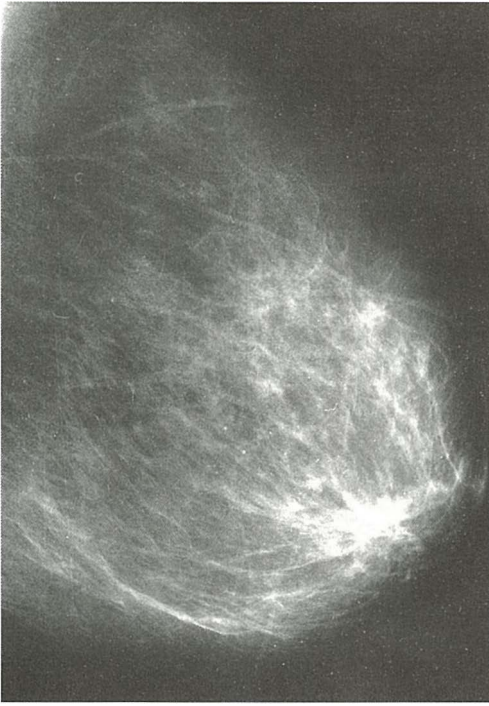


Figure 1 a,b. No tumor could be identified by mammography.

Figure 2 a,b. The contrast media filled up a short, wide part of a duct during ductography.

ures 5a,b). Immediately after this procedure, a US-guided wire localization was performed (Figures 5a,b and Figure 6) and an excision was made within an hour. The surgical sample was examined by mammography (Figures 7a,b). In this preparatum, the tumor could not be seen macroscopically, but the area immediately at the end of the wire was histologically examined: it proved to be a papilloma.

Discussion

Beside mammography,⁴ sonography is a basic procedure in diagnosing breast diseases.^{5,6} Ductography has long been a procedure used for examination nipple with haemorrhage discharge (suspicious of intraductal mass),¹⁻³ and it has usually been followed by surgery. When a tumor obstructs completely the intra-

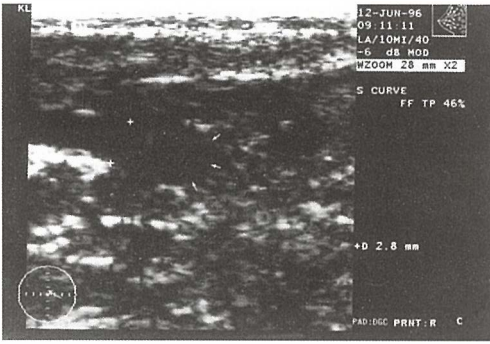


Figure 3. The diameter of the duct, measured by sonography, was 2.8 mm and there was not any solid lesion visible.

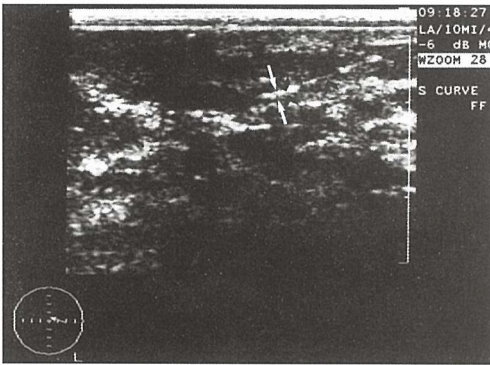


Figure 4. From the area immediately behind the obstruction, Us-guided aspiration biopsy was performed (arrow shows to the needle).

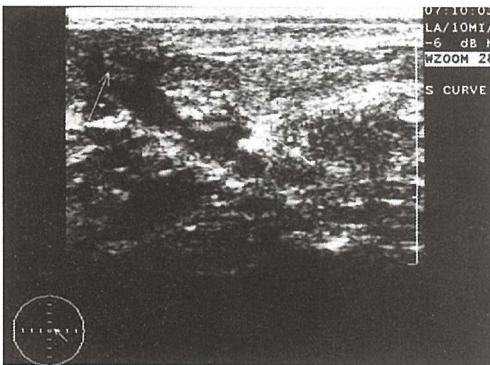


Figure 6. The left arrow shows to the canula, the right to the wire; multiple filling defects were seen intraductally.

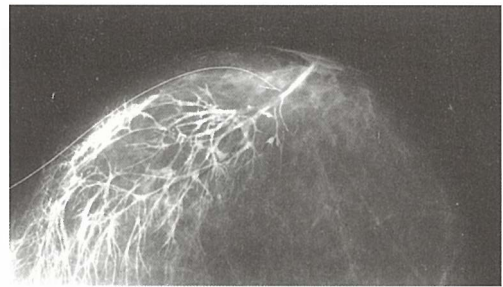
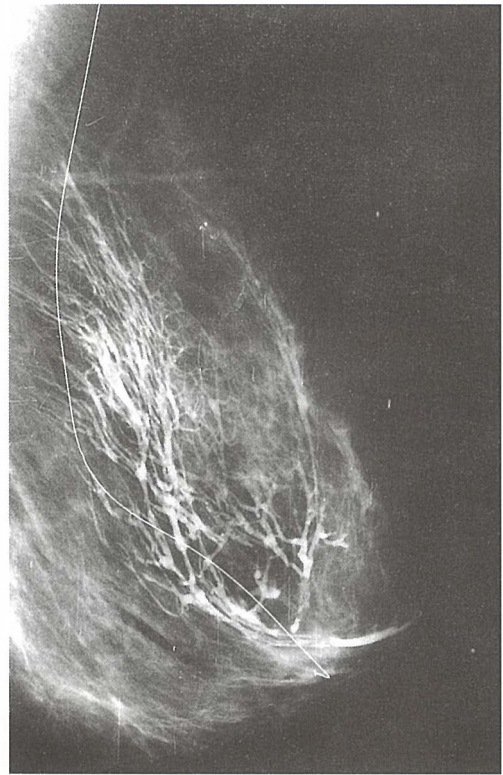


Figure 5 a,b. A wire localization was performed after second filling of the duct

ductal passage, the contrast media cannot fill the duct behind the obstruction,⁷ so the exact extension is not known before operation. Imaging procedures performed and recommended by many authors are the following: mammography, sonography and ductography.⁸ The radiologist should perform biopsy to obtain a sample for cytological examination and to estimate the total block. Repeated

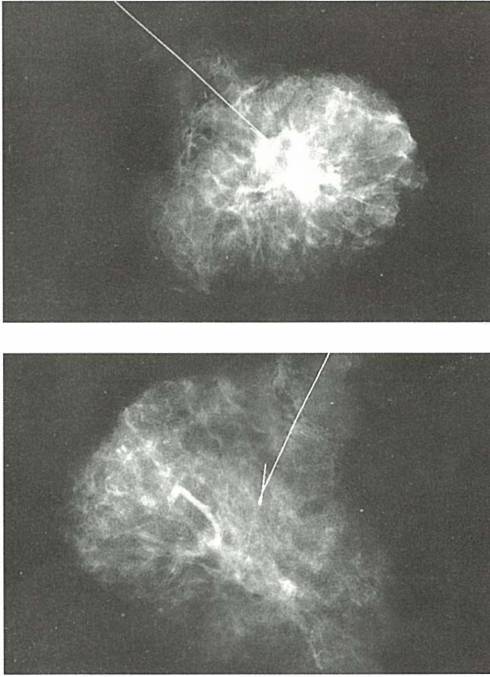


Figure 7 a,b. The surgical sample was examined by mammography.

ductography allows a more precise estimation of the extension of any intraductal growth. After wire localization, proper surgery can be performed.

References

1. Tábar L, Dean PB, Pentek Z. Galactography: The diagnostics procedure of choice for nipple discharge. *Radiology* 1983; **149**: 31-8.
2. Baker KS, Davey DD, Stelling CB. Ductal abnormalities detected with galactography. *Amer J Roentgenol* 1995; **162**: 821-4.
3. Cardenosa G, Doudna C, Eklund GW. Ductography of the breast: Technique and findings. *Amer J Roentgenol* 1995; **162**: 1081-7.
4. Soo MS, Williford ME, Walsh R, Bentley RC, Kornguth PJ. Papillary carcinoma of the breast: Imaging findings. *Amer J Roentgenol* 1995; **164**: 321-6.
5. Hilton S, Leopold GR, Olson LK, Willson SA. Real-time breast sonography. *Amer J Roentgenol* 1986; **147**: 479-86.
6. Basset LW, Kimme-Smith C. Breast sonography. *Amer J Roentgenol* 1991; **156**: 449-55.
7. Cardenosa G, Eklund GW. Benign papillary neoplasms of the breast: Mammographic findings. *Amer J Roentgenol* 1991; **181**: 751-5.
8. Fajardo LL, Jackson VP, Hunter TB. Interventional procedures in diseases of the breast: Needle biopsy, pneumocystography, and galactography. *Amer J Roentgenol* 1992; **158**: 1231-8.
9. Cilotti A. Intraductal solitary papilloma: Sonographic findings. *Eur Radiol*, 1993; **3**: 38-40.