Endoscopic ultrasonography in the diagnosis, staging, and follow-up of anal carcinomas

B Magdeburg, M Fried & Christa Meyenberger

BACKGROUND AND STUDY AIMS: Endoscopic ultrasonography (EUS) is a technique that is well established in gastroenterology for tumor staging, but so far very few data have been reported concerning the staging of anal carcinomas using EUS. The aim of this study is to underline the value of EUS in the staging and follow-up of anal carcinoma. PATIENTS AND METHODS: In this retrospective study, 30 consecutive patients with carcinoma of the anal canal (nine men, 21 women) were examined using EUS, and the tumors were classified according to the 1985 TNM classification. EUS was carried out either before the start of treatment (15 patients); after the initial treatment in order to plan further treatment; or during follow-up examinations (15 patients). The treatment given was based on the results of the EUS examination. RESULTS: The following tumor stages were diagnosed: four lesions in stage uT0, seven in stage uT1, seven in stage uT2, nine in stage uT3, and three in stage uT4. In seven patients, suspect lymph nodes were also detected by EUS. In all but three of the patients (lost to follow-up), EUS had a direct impact on the treatment selected. Depending on the tumor stage, patients either underwent surgery (four patients: one uT1, one uT2, two uT3); received radiotherapy alone (five patients: three uT2, two uT3); combined chemoradiotherapy (eight patients: three uT2, three uT3, two uT4); interstitial booster radiotherapy (four patients: three uT1, one uT3); or no therapy at all (six patients: four uT0, one uT3, one uT4), respectively. In two patients, the tumor was understaged at EUS: in one, a uT1 tumor proved to be a pT2 tumor, and in the other, a uT3 tumor proved to be a pT4 tumor. CONCLUSIONS: The advantage of EUS in the staging of anal cancer is that it allows precise assessment of the depth of infiltration and tumor spread into adjacent tissue, facilitating the choice of stage-dependent treatment decisions-particularly in determining the extent of interstitial booster radiotherapy needed. It also allows follow-up examinations after the initial treatment, with fine-needle aspiration biopsies of suspicious areas. Wider acceptance of this method might further decrease the performance of extensive surgery, with the impaired quality of life associated with rectal amputation. In addition, it might allow improved quality control of the various treatment modalities.