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POSTER

Radioimmunoscinigraphy with indium-111-labelled monoclonal antibody b72.3 in epithelial ovarian cancer.

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Purpose: to evaluate the reliability of Radioimmunoscinigraphy (RIS) to diagnose epithelial ovarian cancer (EOC) and to detect residual EOC after induction chemotherapy (CT) in advanced disease.

Material and Methods: From 7/1996 to 3/2001 35 patients (pts) were included. Group A: 24 pts with high-risk annexal masses. Group B: 11 pts with supposed residual EOC after CT. 1 mg of monoclonal Antibody B72.3 labelled with 5mCi of Indium-111 was administered via endovenous to all pts. Radioimmunoscinigraphic imaging were done after 24h, 48h and 72 h of administration. Laparotomy was performed within 4 to 7 days. We have evaluated the efficacy of RIS to detect EOC or Borderline Tumours (BT) and we have also compared these results with those obtained with CT Scan, Ultrasonography (US), Doppler and CA125.

Results: Group A: 13 EOC, 4 BT, 7 benign tumours; Group B: 8 EOC and 3 pathological complete response.

Group A

	RIS	CT Scan	US Doppler	CA125
Sensitivity 16/17 (94%)	10/11 (91%)	11/12 (92%)	14/14 (100%)	14/17 (82%)
Specificity 3/7 (43%)	2/4 (50%)	3/3 (100%)	0/7	3/6 (50%)
+Predictive Value 16/20 (80%)	10/12 (83%)	11/14 (69%)	14/21 (67%)	14/17 (82%)
-Predictive Value *(75%)	2/3 (76%)	*(75%)	0/0	3/6 (50%)

Group B

	RIS	CT Scan	CA125
Sensitivity	3/7(43%)	6/8(82.5%)	4/8(50%)
Specificity	3/3(100%)	3/3(100%)	3/3(100%)
+Predictive Value	3/3(100%)	6/6(100%)	4/4(100%)
- Predictive Value	3/7(43%)	3/5(60%)	3/7(43%)
Reliability	6/10(60%)	9/11(82%)	7/11(64%)

No toxicity related to RIS was observed.

Conclusions: The reliability of In-111-B72.3 is similar to conventional diagnosis procedures. It could help us to get a better clinical approach in some cases.

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Contrast-specific ultrasound (CS-US): a promising diagnostic technique in abdominal oncology

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When CS-US techniques are employed with a low beam power (low Mechanical Index or non-destructive mode) and a second-generation agent the images can be dynamically displayed in real-time. We show the first-year experience with CS-US in abdominal neoplastic imaging.

Material and methods: January to December 2002 we performed 281 CS-US studies in 254 non-consecutive patients (first diagnosis or follow-up) with primitive or metastatic abdominal disease (liver, pancreas, spleen, kidney, adrenal, and/or lymphnodes). Following baseline ultrasound the agent SonoVue (Bracco, Italy) was injected. Imaging with a CS-US software (Contrast Tuned Imaging, Esaote, Italy) started immediately and lasted 3-5'. Retrospectively we compared CS-US with conventional ultrasound first, and also of CT, MRI, and PET, regarding the sensitivity, specificity, lesion conspicuity (lesion-to-parenchyma contrast), and lesion size assessment.

Results: No patient had any adverse reaction. The quality parameters were always sufficient for diagnostic purpose. CS-US allowed detection of a greater number of lesions in comparison with conventional ultrasound. Moreover, the lesions identified had a greater conspicuity and correlated better in size with the other techniques if compared to ultrasound. The additional value of CS-US was considered absent (11% of cases), low (19%), medium (25%), and high (45%). In 19% of cases the therapeutic program was modified.

Conclusion: Contrast-enhanced ultrasound is a simple, poorly-invasive, and accurate tool in the evaluation of abdominal cancer patients. It increases the contrast resolution of conventional ultrasound, diminishing the need

for more expensive and radiobiologically-invasive tools. CS-US can be employed as a problem-solver, in the assessment of specific doubts or discrepancies of other imaging techniques. An application in the hepatic periodic follow-up of patients with chronic liver disease and colo-rectal cancer may be suggested. A larger and more homogeneous series is necessary to statistically validate this new, promising technique and to define its inclusion in cancer patient diagnostic algorithms.

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Retroperitoneal lymphnodes scintigraphy in the staging and treatment of Hodgkin's disease.

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Background: To determine the yield of lymphnodes (LN) scintigraphy (LNS) in the management of patients (pts) Hodgkin's disease (HD).

Materials: In 32 primary pts we studied diagnostic value of LNS when it was performed as an additional examinations after routine clinical staging with abdominal and pelvic computed tomography. Importance of LNS for radiotherapy treatment planning was evaluated in additional 97 pts. In all cases bipedal static LNS was performed after interstitial injection of 0.1-0.3 ml (100-150 MBq) of 99mTc-millicolloids.

Results: Twenty six primary pts had concordant results of LNS & CT: in 20 cases - negative, in another 6 - positive for HD. Scintigraphic signs of LN involvement were detected in 3 pts with normal CT. Another 3 pts with positive CT were missed by LNS. Scintigraphic data significantly influenced topography of radiation fields in 21 of 97 pts (21.6%): extension of paraaortic portals were - in 2, iliacal - in 11, inguinal - in 8 cases.

Conclusions: 1. Bipedal LNS can significantly improve sensitivity of clinical staging of HD. 2. LNS is very useful in designing subdiaphragmatic radiation fields.

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Diagnostic images for lymph node staging in anal canal carcinoma

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Background: Combined chemotherapy and radiotherapy has become the standard care for carcinoma of the anus. The evaluation of local extension, inguinal and external iliac lymph node involvement, is mandatory for treatment and prognosis.

Lymph node involvement increase treatment volume, enlarging the field of irradiation.

The aim of this study is to assess diagnostic value of combined MRI, CT and US imaging, in the detection of regional lymph node metastases.

Materials and methods: 38 patients affected by anal canal carcinoma were studied from 1995 to 2002. All patients underwent clinical examination, MRI, CT and US with CD as a part of staging procedure to assess positive lymph node.

Clinical stage was: 63% T1-T2 (24/38) and 37% T3-T4 (14/38). 12 patients had inguinal involvement: T1-T2 16% (4/24), T3-T4 57% (8/14).

Only in T1-T2 N0 cases the inguinal area received a basal dose of irradiation without boost.

Results: Groin involvement of 12 positive node patients were well documented by MRI, CT and US imaging particularly in quite enlarged node. Nodal positivity was determined by size on MRI and CT, while vascular changes can well be detected by US with CD. At the end of radiochemotherapy 9 positive node patients become negative; nodal recurrence was observed in 2 cases during follow up. In the negative nodal group only one patients recurred in the inguinal area.

Conclusion: Combined MRI,CT and US imaging, seems to had more information in the diagnosis of lymph node metastases. Optimal results should be obtained with the use of MRI lymphatic specific contrast