Complete scintigraphic lesion regression after single $^{153}$Sm-EDTMP therapy in prostate cancer

Regresión completa de la lesión en la gammagrafía después de una simple terapia con $^{153}$Sm-EDTMP en cáncer de próstata

K Weiss, H-H Köck, K Atefie, H Sinzinger

Department of Nuclear Medicine. University of Vienna. Austria.

The palliative treatment of osteoblastic metastatic prostate cancer with radioisotopes seems to be a good alternative and addition to external field beam radiation therapy. Results with $^{89}$strontium chloride and $^{186}$rhenium hydroxyethylidenediphosphonate suggest a sufficient palliation of pain, but no influence on survival.$^{1,2}$ Using $^{153}$-samarium ethylenediaminetetramethylene phosphonate ($^{153}$Sm-EDTMP) there is in addition evidence of stabilization of skeletal metastases on subsequent bone scintigraphy.$^{3}$

We want report on one of our patients (GA, 56a), who has no further signs of metastatic bone disease after therapy with 3,5 GBq of $^{153}$Sm-EDTMP anymore. In 1997 the patient underwent surgery because of an adenocarcinoma of the prostate (pT4, pNx, pM1, TUR-P and orchidectomy). Bone scintigraphy showed multiple metastases in the spine and the pelvis (Fig. 1A), PSA was 110,6 ng/ml.

In 1998 (March) intravenous therapy with $^{153}$Sm-EDTMP was performed. The posttherapeutic scintigraphy showed enhanced tracer uptake in the known metastatic lesions. $^{99m}$Tc-DPD scintigraphy performed 7 months later (October 1998) revealed complete normalization (Fig. 1B) PSA was and still is (March 2000) in the normal range (< 0,5 ng/ml). The patient is still free of pain.

We conclude that $^{153}$Sm-EDTMP is not only effective in pain treatment, but might also have significant curative action in selected patients with me-
tastatic bone lesions. A controlled study using repeated $^{153}$Sm-EDTMP application to assess this benefit in detail is underway at present.

BIBLIOGRAFÍA

