laboratory signs of nephropathy in a patient with NHL should give suspicion of other causes than renal metastases, for example, genuine GN. Minimal change glomerulopathy accounts for nearly 20% of these cases (3, 4). MPGN (5, 6) and crescentic GN have also been described. The pathogenesis of paraneoplastic GN remains uncertain, although autoimmune mechanisms may be involved, i.e. formation of immunocomplexes by antigens from tumor or normal tissues. Another proposed mechanism in lymphoproliferative disorders is T-lymphocyte dysfunction (7, 8). In well-documented cases the nephrotic syndrome has appeared at the same time as NHL, and some authors have reported remission of the syndrome in connection with treatment of NHL (9). In our patient it seems logical to correlate the clinical and laboratory nephropathy signs to the NHL, since they appeared only three months after the diagnosis of the malignancy and since no other causes of acute nephropathy were found. However, it is difficult to explain why the nephrotoic proteinuria disappeared before the administration of chemotherapy. Remission of the nephrotic syndrome after treatment of NHL has been reported (8), but we have not found reports of spontaneous remission. Spontaneous remission of idiopathic MPGN, although rare and transitory, has, however, been described (10). Powderly et al. (8) reported spontaneous remission of mesangioproliferative GN in a patient who had been treated 15 months previously for Hodgkin's disease; as the renal condition cleared without further treatment of the malignancy, the authors argued against an association. On the other hand, spontaneous remissions of NHL do occur, but this was not the case in our patient.

ENRIQUE ESPINOSA[1]
JORGE MARTÍNEZ-ARA[2]
MARIA LUZ PICAZO[3]
PILAR ZAMORA[1]

Departments of Medical Oncology[1], Nephrology[2], and Pathology[3]
Hospital La Paz
Madrid
Spain

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Correspondence to: Dr E. Espinosa, Service of Medical Oncology, Hospital La Paz, Po. de la Castellana, 261, E-28046 Madrid, Spain.

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PULMONARY HYPERTENSION—A RARE PRESENTATION OF CHORIOCARCINOMA

Gestational trophoblastic diseases (GTD) cover a spectrum of diseases with totally benign vesicular mole (hydatidiform mole) at one end of the spectrum and aggressive choriocarcinoma at the other end. The incidence of vesicular mole is 0.2 to 2 per 1 000 pregnancies (1). These patients are screened for potential malignant sequelae, and therefore few choricarcinomas nowadays present with advanced disease. However, trophoblastic tumours might occur after abortion and after normal pregnancies, and those occurring after normal pregnancy represent invariably choriocarcinoma. Rarely the tumour can present with pulmonary embolism and pulmonary artery hypertension. Recognition of this clinical entity is important due to the excellent outlook with appropriate treatment. We describe a case which was successfully treated with combination chemotherapy including etoposide, methotrexate (with calcium leucoverin rescue) actinomycin-D, cyclophosphamide and vincristine.

Case history. A 33-year-old female presented with 3 month's history of progressive exertional dyspnoea and later on dyspnoea at rest as well. She had had repeated episodes of right-sided chest pain during the previous month. She had a history of two abortions during the preceding 3 years and had had amenorrhoea for 2 months prior to presentation. On clinical examination she was cyanotic, had tachypnoea at rest, tachycardia (140/min) with a blood pressure of 100/60 mm Hg, left parasternal heave, a loud pulmonary second sound and raised jugular venous pressure. Pelvic examination revealed a soft cervix and a normal-sized uterus with bilateral ovarian cysts. Chest radiography showed a prominant pulmonary artery segment and ill-defined opacities in both lung fields. Electrocardiogram showed right heart dominance and echocardiogram revealed moderate pulmonary hypertension. Pulmonary wedge aspiration showed groups of undifferentiated malignant cells. The serum beta HCG concentration at presentation was 144 474 IU/l. Ultrasound of abdomen showed a normal uterus with clear uterine cavity and cysts in both ovaries. The patient was started on our high-risk chemotherapy protocol, alternating etoposide, methotrexate and actinomycin-D every week with vincristine and cyclophosphamide (EMA-CO). The beta HCG concentration decreased to normal within 12 weeks and chemotherapy was discontinued after 17 weeks. Obvious clinical improvement was noticed from the third week of therapy which was maintained throughout the course. At four months of treatment, the patient was asymptomatic except for dyspnoea on severe exertion; the signs of pulmonary artery hypertension had also disappeared.

Discussion. Bagshawe & Brooks (2) were the first to suggest that pulmonary artery hypertension (PAH) due to choriocarcinoma is potentially reversible. They also reported 30 years ago that choriocarcinoma could be found at necropsy in the pulmonary tree in patients who died of PAH. Still, not many know that choriocarcinoma can present with pulmonary embolism and PAH. The chest radiograph may be normal. V/Q scanning can help to confirm pulmonary emboli. Pulmonary angiography could be fatal due to dislodgement of the tumour. It is important to diagnose this clinical syndrome since it is curable if appropriately treated (3). Primary growth in the uterus or any other site may

not be apparent. A high urinary or serum beta HCG in the absence of pregnancy should alert the clinician to the possibility of choriocarcinoma (4). Biopsy of the suspicious lung nodules may be contraindicated because of the risk of death due to haemothorax. Disease progress is monitored clinically and by serial beta HCG assay. Heparin can be used to prevent thrombus extension on the tumour. Formal ventilation of these patients has resulted in 100% mortality from baro-trauma induced damage (5) which can be avoided by use of continuous positive airway pressure mask support.

We wish to stress that choriocarcinoma, though rare, should be considered in the differential diagnosis of young women presenting with pulmonary embolism or PAH. The outcome is fatal unless appropriate treatment is given. Definitive tissue diagnosis is not always required before treatment, since beta HCG is a reliable tumour marker for choriocarcinoma.

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VADAVATTATH PADMANABHAN GANGADHARAN
KESAVAN CHITRATHARA
RAMACHANDRAN SIVARAMAKRISHNAN
KOCHUNARAYANAN SATISHKUMAR
MADHAVAN KRISHNAN NAIR

Departments of Medical Oncology,
Gynaecologic Oncology, and
Radiotherapy
Regional Cancer Centre
Trivandrum
India

March 1993

Correspondence to: Dr V. P. Gangadharan. Department of Medical Oncology, Regional Cancer Centre, Medical College Campus, Trivandrum 695011, India.

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RECONSTRUCTIVE SURGERY FOR METASTATIC DESTRUCTION OF THE ACETABULUM

We report a case of extensive metastatic destruction of the acetabulum, with incipient collapse of the hip joint and pain on walking. A total hip arthroplasty reinforced by load transmitting metal bars to the proximal pelvis, as described by Harrington (1), was performed with an excellent outcome.

Case report. A 71-year-old woman with no concurrent disease was operated on for a breast carcinoma, stage T3N1M0. The patient had had an insidious onset of right-sided hip pain already some time before the operation but this increased and a radiograph four weeks postoperatively showed a large lytic destruction of the right acetabular area. A technetium bone scan revealed a high uptake in the acetabular region and some activity proximally in the right femur and in the sixth rib. Local radiation therapy was given to the pelvis, with a total dose of 36 Gy in 12 fractions. Tamoxifen 40 mg daily but no cytostatic therapy was given. However, the hip pain persisted and she needed crutches for ambulation and therefore surgery was considered. Conventional acetabular cup constructs would not withstand the mechanical forces without risk of loosening and failure, since the patient had a moderate to long life expectancy. The technique of Harrington was instead employed. After a standard hip dissection for arthroplasty in the lateral position with dislocation of the hip and osteotomy of the femoral neck, the softened acetabular roof was excised and fibrous-gelatinatous metastatic tissue was curetted out thoroughly. The lesion was surrounded by a sclerotic wall of bone. The sciatic nerve was identified and protected and the dissection was extended bluntly to the foramen ischiadicum. With a finger probing slightly past the sciatic notch into the lesser pelvis, serving as a guide for the surgeon, two threaded 5 mm steel pins were drilled from the joint into the inferomedial parts of os ilium and further through the sacroiliac joint proximally. Three pins were then drilled from the crista iliaca down into the bone defect and joint. Then, after high pressure irrigation of the supra-acetabular defect, bone cement was used to plug the defect and to surround the protruding pins within it. In the same sequence a standard Scanhip polyethylene cup was cemented in an anatomic position. For the femur a cemented long-stemmed standard Scanhip femoral component was used. Postoperatively immediate full weight bearing was allowed and the patient went home after 13 days. Local discomfort on walking vanished within some weeks. At two months she could discontinue the use of walking aids completely.

At 1-year and 2-year follow-ups she had no pain and could walk 3–4 km without any walking aid. She had a good range of motion of the hip, a pain free negative Trendelenburg sign, and no local discomfort over the pins proximally. Radiographs showed no changes in the bone adjacent to the cement block and no signs of prosthetic loosening. The patient has no new known metastasis. Palliative medication with tamoxifen 40 mg daily is still given.

Discussion. New orthopedic techniques including arthroplasty, internal fixation, and the use of bone cement have made stabilization of large metastatic bone defects possible. Our case demonstrates the possibility to surgically provide a good and lasting palliation in acetabular insufficiency. The method we used was originally described by Harrington (1), who reported 25 cases operated on because of extensive acetabular destruction. None developed signs of mechanical loosening or symptoms attributable to the use of metal rods through the sacroiliac joint. The mean survival was 2.5 years with two-fifths of the patients still alive more than 4 years postoperatively. Preoperative pain was rated as moderate or severe in four-fifths of his patients, whereas only one-fifth of followed up patients had that degree of pain at two years. The subgroup of breast carcinoma patients had a mean survival of 3 years with almost half of the patients alive at 4 years.