



MISDIAGNOSED MALIGNANCY IN TRANSPLANTED ORGANS.

**O. Detry, B. Detroz, M. D'Silva, J.O. Defraigne,
M .Meurisse, P.Honore, R. Limet, N. Jacquet.**

**Department of Surgery and Transplantation.
CHU Sart-Tilman, Liège.**

INTRODUCTION

Since the widespread use of Cyclosporine, organ transplantation has become the treatment of choice for a growing number of terminally ill patients. Unfortunately, the number of procedures is limited by the scarcity of organ donors. The enlargement of indications of organ harvest and the use of suboptimal donors may lead to specific complications, as the transferral of malignancy by grafting cancerous organs.

We report our experience in this rare but disastrous complication of transplantation.

CASE REPORTS

Donor 1 was a 30-year-old female died from nontraumatic cerebral hemorrhage. A multiorgan harvest was performed, and the liver and the left kidney were explanted and transplanted to recipient 1 and 2, respectively. The right kidney was rejected for vascular and urological abnormalities. Necropsy revealed a nodule in the right kidney, and three hemorrhagic nodules in the right lung. Histopathological analysis of these nodules demonstrated the presence of a choriocarcinoma.

Later serum analyses revealed very high levels of β -HCG.

Recipient 1 was a 20-year-old female who received the left kidney from donor 1. Graft CT-scan demonstrated a 2-cm nodule, and the immunosuppression was immediately interrupted. Transplantectomy was performed on postoperative day 12 but β -HCG levels rose in spite of systemic interferon treatment in an attempt to stimulate her immunity. A chemotherapy (actinomycin D and etoposide) was undergone, which succeeded in normalizing the β -HCG levels. Two years later, the patient was retransplanted and since then shows no evidence of recurrence.

Recipient 2 received the liver harvested from donor 1. His β -HCG levels rose despite normal graft CT scan. He underwent chemotherapy (methotrexate) but his condition prohibited retransplantation. The patient died on day 39 from pulmonary complications, and autopsy showed 3 choriocarcinoma metastasis in the hepatic graft.

Donor 2 was a 35-year-old female who died from a nontraumatic cerebral hemorrhage. Paraaortic adenopathy was noticed during multiorgan harvesting. The liver, the heart and the kidneys were transplanted in 4 different centers. The results of the histopathological examination demonstrated that the paraaortic and pulmonary nodes were positive for a disseminated epidermoid epithelioma, originating from the cervix uteri.

Recipient 3 was a 25-year-old man who received the liver from donor 2 in our department. When the necropsy findings were known, the patient was reinstated on the transplantation waiting list. CT scan were inconclusive and the patient was retransplanted on postoperative day 7. No evidence of malignancy was detected on histopathological analysis examination on the graft.

Donor 3 was a 55-year-old female who died from cerebral hemorrhage in another country. We received one kidney, and we found a 4-cm nodule in this organ. Frozen section of this lesion showed a renal adenocarcinoma and transplantation was aborted in our center and in the centers which received the other kidney and the heart from the same donor.

DISCUSSION

As these cases demonstrate, the transferral of malignancy with organ transplantation may rarely but dramatically complicate the postoperative outcome of recipients. Its medical management is difficult, and its psychological impacts on the recipients may be disastrous. The transplant centers, both small and large, must be prepared for such an eventuality. Due to the organ shortage, the transplant teams enlarge the indications of harvesting, accepting older donors for instance, but the "malignant" donors must be avoided.

PREVENTION

The use of donors with previously successfully treated cancer should be totally excluded, excepted the primary supratentorial cerebral tumors.

Careful examination of the abdomen and the thorax must be performed during the harvesting.

Histopathological analysis of suspected nodules must be available before the transplantation.

Peroperative echography and postharvesting autopsy may be helpful.

The level of β -HCG must be available in female donors died from cerebral hemorrhage.

TREATMENT

Kidney transplantation

- Immunosuppression must be discontinued.
- Graft must be explanted.
- Specific chemotherapy must be initiated if primary tumor is proven sensitive to treatment.

Liver transplantation

- Hepatic allografts are not immediately expandable, and they must remain in situ until another graft is available.
- Specific chemotherapy must be initiated if primary tumor is proven sensitive to treatment.

Heart transplantation

-Observation?

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