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Missed Diagnoses Revealed at Necropsy in Patients with Gynaecological Malignancies

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THE ADVENT of sophisticated diagnostic tests has reduced the number of necropsies in patients who die while in hospital, due to the conviction that this procedure is unnecessary for verification of diagnosis [1, 2]. Many clinicians, however, are rediscovering the benefits of necropsy [3–6]. Our experience of the past 10 years has demonstrated that necropsy can reveal unexpected findings, even in apparently simple cases. Of 704 patients treated for gynaecological neoplasms, 54 died in our hospital and necropsy was requested for 29 (54%) (Table 1).

Request forms were always filled out by oncology group clinicians, and contained detailed information about the clinical course. A clinician was almost always present at the necropsy. In 9 deaths due to postoperative complications, the clinical diagnosis was confirmed. In a patient with stage IIIC ovarian cancer, who died from a pulmonary embolism, a second primary neoplasm was found in the pancreas. The necropsies in the other 20 cases were done to confirm and evaluate better the spread of disease in patients who died of cachexia. In 2 of these cases necropsy revealed a missed major diagnosis [5].

Case 1 (65 years) was operated on in July 1987 for a stage IIIB heterologous mixed Mullerian tumour of the ovary, with residual tumour of less than 1 cm after surgery. She was given chemotherapy with cisplatin and doxorubicin. Second-look laparotomy at 6 months revealed only one random biopsy specimen (an adhesion) positive for tumour, so chemotherapy was discontinued. A smooth, painful centropelvic mass and fever developed in June 1988. Computed tomography (CT) confirmed the clinical suspicion of recurrence. Concomitant anaemia and thrombocytopenia were interpreted as being secondary to the recurrence. The patient died 1 month later and the necropsy revealed no tumour in the abdominal cavity. The progressively increasing abdominal mass proved to be a partly organised haemoperitoneum.

Table 1. Missed clinical diagnoses in 29 necropsies

Clinical diagnosis		Necropsy findings
Pulmonary embolism	6	In 1 case, second primary tumour of pancreas
Myocardial infarction	1	–
Peritonitis	1	–
Cerebral embolism	1	–
Progression	20	In 2 cases, major missed diagnosis: adherences with intestinal occlusion organised haemoperitoneum

Case 2 (49 years) underwent first surgery in September 1987 for a stage IV (pleural) serous papillary ovarian carcinoma with residual tumour of 10 cm (the omentum was not removable). On completion of chemotherapy with cisplatin plus cyclophosphamide (with pulmonary disease radiologically negative), a second-look laparotomy demonstrated a good partial response and permitted debulking of the residual omental disease. The patient then received consolidation with the same drugs; at the end of this treatment, in keeping with the protocol [7], a third-look laparotomy was done in February 1988 and demonstrated complete response to therapy. The patient did well until July 1988 when intestinal occlusion developed. CT showed abdominal relapse, confirming the suspicions raised at clinical examination. Palliative derivative surgery seemed useless because of diffuse peritoneal carcinomatosis. The patient died 2 months later, and necropsy revealed diffuse fibrous adhesions conglobating the large and small intestines; however, no tumour was found in the abdominal cavity. Only a microscopic residual tumour was present in the pleural cavity.

Thus modern technology has not eliminated the need for postmortem verification: diagnostic imaging may have serious difficulties in the differential diagnosis between neoplasia and some therapy complications [8]. Necropsy provides valuable medical audit and can uncover missed diagnoses which could be helpful for future practice. When possible necropsy should be performed in all cases, and an effort should be made to overcome the natural resistance of relatives.

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