

## Reply

We would like to thank Dr Li and colleagues for their interest in our work.

We also appreciated their experience in the treatment of ovary transitional cell carcinoma (TCC) and expected to have chance to learn more from their research.

Primary TCC is one of the subtypes of epithelial ovarian cancers, with an incidence of 1–2%.<sup>1</sup> Indeed, ovarian TCC is an uncommon type of ovarian epithelial carcinoma, but not rare enough to for a case to have been reported recently. The main purpose of our report was to present the first case of primary ovarian TCC after renal transplantation (RTx). Urinary tract TCC after RTx is extremely high in Taiwan. Several studies in Taiwan have demonstrated a markedly increased frequency of urinary tract TCC in RTx recipients, with an incidence of 4.1%.<sup>2,3</sup> It is still unknown whether primary ovarian TCC after RTx is caused by the same pathophysiological mechanism (immunosuppression, uremia, and arsenic intoxication) as urinary tract TCC.

We also presented the whole treatment course, including adjuvant chemotherapy, in this report.<sup>4</sup> Dr Li et al questioned us about our chemotherapy regimen. We have to admit that the cisplatin-based regimen is the standard regimen for primary ovarian TCC. Beside the chemotherapy effect, we should have paid more attention to the transplanted kidney function. Nephrologists and RTx patients are reluctant to receive the possible nephrotoxicity prescription. Cisplatin-based chemotherapy represents the cornerstone in the treatment of many tumors. Multi-agent regimens, such as MVAC (methotrexate, vinblastine, doxorubicin and cisplatin) and CMV (cisplatin, methotrexate and vinblastine) have shown results in patients with metastatic TCC. With regard to advanced TCC in RTx recipients, the main side-effect of cisplatin-induced nephrotoxicity may have potential risks.<sup>5</sup> In addition, the main side-effects of cyclosporine are nephrotoxicity and hypertension. It is therefore difficult for transplant physicians to conduct a cisplatin-based chemotherapy regimen in order to treat advanced TCC in RTx recipients who also receive cyclosporine.<sup>5</sup> Drugs such as cyclophosphamide may also enhance the release of antidiuretic hormone, increasing the risk of hyponatremia from inappropriate water retention, which is a risk factor for renal tubule damage.<sup>6</sup>

The clinical course of TCC in RTx patients is aggressive. Gemcitabine plus cisplatin has a better safety profile than

MVAC and may be considered the first choice for treatment of metastatic bladder cancer. Patients unable to tolerate cisplatin may benefit from gemcitabine plus carboplatin.<sup>7</sup> We have some unpublished and encouraging experience with the combination of gemcitabine and the less nephrotoxic substitute carboplatin in treating advanced urinary tract TCC after RTx. Without prior experience and literature on treating primary ovarian TCC in RTx patients, gemcitabine and carboplatin were used for this patient in the same formula as for advanced urinary tract TCC in RTx patients. The response of this patient seemed to be fair.

We want to elucidate the treatment course logically via this brief report. We thank Dr Li and colleagues for raising their queries regarding our work.

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