CANCER

Second-line therapy for adrenocortical carcinoma proves beneficial

The findings of a recent phase II clinical trial suggest that gemcitabine plus metronomic fluoropyrimidines might provide a novel second-line option for patients with advanced adrenocortical carcinoma (ACC). “All second-line approaches attempted in this very rare disease have led to disappointing results,” explains senior investigator Alfredo Berruti. “To our knowledge, this is the first trial showing some activity of a second-line chemotherapeutic regimen.”

ACC is an aggressive disease that responds poorly to chemotherapy. Patients who receive first-line platinum-containing drugs plus mitotane are prone to relapse; as a result, effective second-line therapies are urgently needed.

The investigators decided to screen the activity of gemcitabine (a nucleoside analog) plus metronomic fluoropyrimidines in 28 patients with heavily treated, advanced ACC. This drug combination

had previously been found effective in pancreatic and renal cancers.

A clinical benefit of this strategy was apparent after just 4 months—complete or partial response plus disease stabilization was obtained in 13 patients. Of note, one patient achieved a long-lasting and complete clinical response. The treatment regimen was generally well-tolerated.

The next step for Berruti’s team is to confirm their results in a large, multicenter clinical trial. If verified, an active second-line approach comprising gemcitabine plus metronomic fluoropyrimidines could potentially be offered to patients with refractory ACC.

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Original article Sperone, P. *et al.* Gemcitabine plus metronomic 5-fluorouracil or capecitabine as a second-/third-line chemotherapy in advanced adrenocortical carcinoma: a multicenter phase II study. *Endocr. Relat. Cancer* **17**, 445–453 (2010)