

Use of metronomic chemotherapy in oncology: results from a national Italian survey

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ABSTRACT

Aims and background. Metronomic chemotherapy refers to the administration of low doses of cytotoxic agents over a prolonged period of time with no or only short drug-free intervals. It is designed to overcome acquired tumor resistance to chemotherapy and reduce neo-angiogenesis despite a lower toxicity than with standard chemotherapy. The role of metronomic chemotherapy remains controversial, and its optimal therapeutic use has not yet been defined.

Methods and study design. The present survey was designed as a short questionnaire and was sent to the medical oncologists registered with Medikey, a national database listing all the Italian oncology specialists linked with the Italian Council of Medical Oncology Hospital Consultants (*Collegio Italiano Primari Oncologi Medici Ospedalieri*, CIPOMO) and the Italian Association of Medical Oncology (*Associazione Italiana di Oncologia Medica*, AIOM). The questionnaire was completed on a voluntary basis and it was totally anonymous.

Results. The questionnaire was sent to 3,289 oncologists, and 191 (5.8%) actively participated in the survey. Seventy-two percent of responders declared that they had administered a regimen of metronomic chemotherapy at least once. Metronomic chemotherapy is commonly used in advanced breast cancer patients, and in most cases it was prescribed after failure of at least two lines of treatment. Oral agents such as cyclophosphamide, capecitabine, methotrexate and vinorelbine were the most commonly prescribed drugs. Nearly 60% of responders was believed to have significantly less toxicity with metronomic chemotherapy than with standard chemotherapy.

Conclusions: The sample of oncologists who participated in the survey is small but it appears to be representative of the Italian medical oncology community. The answers to the questionnaire indicate a significant interest in metronomic chemotherapy, which is apparently widely prescribed. This is the first large national survey on the use of metronomic chemotherapy. Considering the results, larger research on metronomic chemotherapy is strongly warranted.

Key words: metronomic chemotherapy, survey, vinorelbine, cyclophosphamide, methotrexate, capecitabine.

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