Opposing effects of quinacrine and chloroquine on the development of TA3 transplanted tumors in mice

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Both quinacrine and chloroquine had been used as antimalarial agents. Furthermore, antineoplastic and antiviral effects have been described for quinacrine, while chloroquine has been described to induce viral replication and promote tumor growth. To search for differences in the growing rate of transplanted tumors, chloroquine or quinacrine were administered orally to AJ mice from 30 days previous to the inoculation of TA3 transplantable tumor cells, treatment being continued up to the end of the experiment. A control group, transplanted with tumor cells received tap drinking water. Marked differences between the three groups were found. Quinacrine had antitumoral effect, while chloroquine promoted a faster tumoral growth than controls (p < 0.01). Results suggest caution in the use of chloroquine, because it might have a similar promoting effect on human neoplasia.