A CHOLESTEROL DERIVATIVE (24-ETHYL-CHOLESTANE-3β5α,6α-TRIOL) WITH ANTITUMOR ACTIVITY IN ADVANCED REFRACTORY OR RECURRENT HODGKIN LYMPHOMAS

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Aim: Oxysterols are oxidative metabolites of cholesterol. Certain oxysterols have been reported to exhibit anticancer effects, possibly via modulation of cholesterol efflux, Akt, or liver X receptors (LXRs). These oxysterols cause either G1 cell cycle arrest or apoptosis in cancer cells. Therefore, oxysterols with cytotoxic activity might be potential therapeutic agents in cancer treatment. (24-Ethyl-cholestane-3β5α,6α-triol) is an oxysterol developed by our group. Besides its high antitumor potential, it has been shown to be devoid of side-effects. Advanced recurrent or refractory Hodgkin lymphomas (HLs) have a dismal prognosis and are in general treated palliatively. New active treatments are needed to salvage this category of patients.

Methods: From 2001 to 2013 we have treated 11 patients (pts) suffering from relapsed or refractory Hodgkin lymphomas. Six were males and five females. The median age was 29y. Six pts had nodular sclerosing subtype, three had mixed cellularity and two pts had lymphocyte-rich. One pt was stage II, four were stage III and six stage IV. Three pts had received only 1 regimen of chemotherapy but were refractory, 5 had received 2 previous chemotherapy regimens and 3 had received 3 chemotherapy regimens. Most of the pts had also been treated with radiotherapy. Eight pts were symptomatic (B-symptoms, pain …) and most of them had a poor performance status. Patients received daily 10 mg/kg of oral (24-ethyl-cholestane-3β5α,6α-triol) divided in 3 equal doses, until disease progression.

Results: Six patients exhibited a complete response (CR), 2 pts had a partial response (PR), 1 pt had a stable disease (NC) and 2 pts progressed under treatment. Most of the pts experienced a rapid and dramatic improvement in their quality of life and a fast and remarkable symptoms control. Some patients taking high doses of pain-killing agents, and or opioids could stop them within 2-4 days. No side-effects of any kind were observed.

Conclusions: These surprising, excellent results achieved with (24-ethyl-cholestane-3β5α,6α-triol) in recurrent or refractory Hodgkin lymphomas make it a good candidate for prospective clinical trials.

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