

NOVEL TREATMENT OF ANAPLASTIC CANCER WITH VALPROIC ACID AND CONVENTIONAL CHEMOTHERAPY

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Background/Purpose: Valproic acid, an anti-epileptic with HDAC inhibitor effects, has been shown to enhance the effect of doxorubicin on anaplastic cancer strains in vitro. Here we present a series of 8 cases treated with oral valproic acid and chemotherapy.

Methods: 8 cases of anaplastic carcinoma, 4 males and 4 females, were treated with valproic acid and chemotherapy. 2 cases were stage IVa, 3 were stage IVb and 3 were stage IVc. 6 cases were given chemotherapy with doxorubicin/cisplatin at four week cycles, 1 was given paclitaxel and 1 given both. 5 received partial or total thyroidectomy. 3 received radiation. All patients received treatment under fully informed consent. All treatments were approved by the institutional review board.

Results: Average survival was 22.5 months after initial diagnosis. 3 cases survived less than 6 months, 2 between 6-12 months and 3 more than 12 months. 3 responded poorly. 5 responded at least partially with 1 showing complete response.

Of the 3 long term survivors, 2 were stage IVa and 1 was stage IVc. The 2 cases of stage IVa survive with no recurrence as of this writing (at 77 months and 31 months). 1 case of stage IVc survive with recurrence after subsequent additional surgery, radiation and assorted oral medications (43 months).

Discussion & Conclusion: These results imply that the addition of valproic acid to conventional chemotherapy improves both tumor response and overall outcome. We believe these results justify a more structured clinical trial.