COMBINED ERLOTINIB AND CELECOXIB TREATMENT FOR JUVENILE RECURRENT RESPIRATORY PAPILLOMATOSIS IN CHILDREN – 5-YEAR FOLLOW-UP

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Introduction

Severe juvenile-onset recurrent respiratory papillomatosis (JRRP) is still an unsolved problem for investigators and makes patients, caregivers and doctors suffer during many years before often leading to pulmonary complications or malignancies with fatal consequences. There is desperate need for new adjuvant treatment options, since in severe cases surgical treatment alone is not enough to control the disease and established adjuvant treatment options seem to fail. Publications showed in-vivo and in-vitro effectiveness of combined Erlotinib and Celecoxib treatment in adult-onset recurrent respiratory papillomatosis. Celecoxib is a selective Cyclooxygenase-2 inhibitor, used as an antiinflammatory drug. Erlotinib is an antiangiogenic drug inhibiting the epithelial growth factor, used in non-small-cell lung cancer.

Objectives

The aim of our study was to review the outcome of combined treatment with Erlotinib and Celecoxib as adjuvant medical therapy in a pediatric patient subgroup of 4 patients with criteria of severe juvenile-onset recurrent respiratory papillomatosis (JRRP) from 2011-2017.

Materials and Methods

We analyse data on age, serotype, number of surgeries, interval between surgeries, severity and extension (Derkay Severity Score) and impact of the non-surgical treatment. Four patients received Erlotinib and Celecoxib as a combination therapy. We describe the 5-year follow-up and actual status of the patients.

Results

Compared to other adjuvant therapies we found a strong positive response after the introduction of Erlotinib and Celecoxib, but we also found a rebound effect with clear deterioration after stopping the treatment in two patients which made necessary to prolong the treatment (fig. 1). One patient had to stop treatment after one month because of side effects as gastrointestinal and respiratory infections. Hair loss and acneiform cutaneous lesions on body and face were present in all patients. Over five years time progression of the disease was observed in three patients, one of them died because of pulmonary malignancy.

Conclusions

Although we experienced better control of the disease with lower Derkay scores and prolonged interoperative intervals, and patients referred improvement of quality of life during the time of the treatment, we cannot state the effectiveness of this treatment combination so far.
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