

## **Better the Devil you Know? 'Boswellia serrata' as an alternative to 'Dexamethasone' to treat peritumoural oedema.**

*Kylie Wright, Liverpool Hospital, NSW*

One of the most common complications of brain tumour growth is peritumoural oedema. Such oedema and its inflammatory processes are major contributors to neurological symptoms and morbidity in brain tumour patients and the treatment of these phenomena has always been of high importance.

The first choice treatment of symptomatic cerebral oedema is the corticosteroid dexamethasone. Despite significant adverse side effects such as cushingoid habitus, immunosuppression, hyperglycaemia and proximal myopathy, this drug is widely used and considered a necessary evil in neuro-oncology management. There is evidence that dexamethasone influences cancer therapies through stabilisation of blood-brain and blood-tumour barriers and reduction of tumour perfusion and it has been shown to interfere with the efficacy of chemotherapy by directly inhibiting apoptosis in malignant glioma cells.

*Boswellia serrata*, a traditional herbal extract of the Indian frankincense tree, could be considered as a promising alternative to corticosteroids in the treatment of cerebral oedema with less adverse effects and additional induction of apoptosis. *Boswellia serrata* is virtually unknown; however clinical research has shown promising results in its use in reducing cerebral oedema.

Throughout this paper peritumoural oedema and the indications for corticosteroid use will be explored. The challenging side effects of dexamethasone therapy will be highlighted through the use of a case study, and the literature surrounding the effectiveness of *boswellia serrata* and its potential use as a way to reduce or replace steroid use in treating cerebral oedema will be reviewed.