

## Chemical constituents and analgesic activity of *Telfaria occidentalis*

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### Abstract

The seed of *Telfairia occidentalis* is use commonly for nutritional purposes and medicinally in the treatment of malaria and inflammatory diseases. The ethanolic seed extract of *Telfairia occidentalis* (450 -1350 mg/kg) was evaluated for analgesic activity using acetic acid-induced writhing, formalin-induced hind paw licking and thermal –induced pain models. The hexane and dichloromethane fractions were also analyzed using Gas chromatography-mass spectrometry (GCMS). The seed extract exhibited a dose-dependent inhibition of pains in the three experimental models. The GCMS analysis revealed the presence of pharmacological active compounds which are responsible for the analgesic activity.

**Keywords:** *Telfairia occidentalis*; analgesic; vegetable; GCMS; Chemical constituents

### Introduction

*Telfairia occidentalis* (Hook. F) Vahl. popularly known as fluted pumpkin is a member of Cucurbitaceae family. The plant is cultivated in Southern Nigeria mainly for the leaves and seeds which are eaten because of their high content of protein, vitamins and minerals (Johnson and Johnson, 1996). *T. occidentalis* leaf are often used as vegetable in the preparation of soups, while the seeds are eaten raw or roasted and also ground into powder and used as soup thickening. Reports of hypoglycaemic and antidiabetic activities (Aderibigbe et al., 1999; Alada, 2000; Eseyin et al., 2000; Eseyin et al., 2005; Nwozo et al., 2004), antioxidant and antimicrobial activities (Obboh et al., 2006) of the leaf have been published. Several workers have reported on the nutritional composition, chemical characterization and functional properties of fluted pumpkin seed (Asiegbu, 1987; Badifu et al., 1995; Agatemor, 2006; Ezugwu and Nwodo, 2000; Fagbemi et al., 2005). The seed has been reported to possess antiplasmodial (Okokon et al., 2008). Most researches have focused on the leaf and information on the medicinal properties of the seed is scanty. We report in this study the analgesic activity as well as GC-MS analysis of hexane and dichloromethane fractions of the seed extract of *Telfairia occidentalis* from Nigeria.