

## Safety and Diuretic Effect of *Arundo donax* Linn. (အလိုကျူ)

Aye Min Maw<sup>1</sup>, Khaing Khaing Mar<sup>1</sup>, Kyawt Kyawt Khaing<sup>1</sup>, Kyi San<sup>1</sup>,  
Aung Thura<sup>1</sup>, Nu Ye Thin<sup>1</sup>, Aye Thi<sup>1</sup>, Aung Thu<sup>2</sup>, Lei Lei Win<sup>1</sup>

<sup>1</sup>Department of Medical Research (Pyin Oo Lwin Branch)

<sup>2</sup>Department of Food and Drug Administration (Mandalay)

### Abstract

From ancient time, plants are rich source of effective and safe medicines. Herbal medicines are finished, labeled medicinal products that contain as active ingredients, aerial or underground part of plants or other plant materials, or combination, whether in the crude state or as plant preparations. This study aimed to evaluate scientifically the safety and the diuretic effect of *Arundo donax*. in Wistar albino rats. Its rhizome is used as an ingredient in traditional medicine formulation (21) (TMF-21) (ဆီးဆေးဖြူ), Urocrush. The aqueous extract of rhizome of *Arundo donax* Linn. contained alkaloid, glycosides and reducing sugar as phytochemical constituents. The acute oral toxicity of that extract was done according to OECD 425 guideline (2008) in ICR mice and it revealed that LD<sub>50</sub> was > 5000 mg/kg. For the diuretic activity, 30 Wistar albino rats were used and they were divided into 5 groups of 6 animals in each. Those 5 groups were administered 0.9 % NaCl as control, furosemide as standard and 3 doses of aqueous extracts (125 mg/kg, 250 mg/kg and 500 mg/kg) as tests respectively. After administration, each animal was placed individually in metabolic cage for 5 hours to determine urine output and urinary sodium and potassium concentrations were measured by atomic absorption spectrophotometer. Among 3 test doses, 250 mg/kg dose significantly increased urine output and excretion of urinary sodium and potassium ( $p < 0.05$ ) compared with control. This finding can give scientific information for traditional medicinal practitioners and users.