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Chemoprofiling of volatile oils from the leaves of traditional medicinal plant; Clerodendrum phlomidis L.

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Clerodendrum phlomidis L., syn. C. multiflorum Burm (Verbenaceae) is commonly known as Arni in Hindi, Agnimantha in Sanskrit and Clerodendrum or wind-killer in English. It is distributed throughout the India in the drier parts, Malay, Peninsula, Baluchistan, and Sri Lanka. The genus is being used as medicines specifically in Indian, Chinese, Thai, Korean, Japanese systems of medicine for the treatment of various life threatening diseases such as syphilis, typhoid, cancer, jaundice and hypertension. The leaf paste with sugar is given to reduce malarial fever. Leaves are grounded with certain other plant ingredients, stirred in water and administered to sun stroke patients it also used in stomach pain and dyspepsia.

A hydrodistilled extract from the flowers of C. phlomidis (yield 0.05 % v/w), was analyzed by GC and GC-MS. Fifty one constituents (99.57%) were positively detected in the volatile oil for the first time. The prominent components were characterized as twenty four aliphatic hydrocarbons (78.30%), thirteen monoterpene (5.07%), and fifteen sesquiterpene (16.2%). Aliphatic hydrocarbons were composed of nine alkane (25.99%), five cyclic hydrocarbons (18.81%), four aliphatic alcohols (1.35%), three aliphatic aldehyde (1.36%), one alkene (28.42%), and one oleic acid (2.37%). Eugenol (1.34%), and trans- verbenol (1.23%) were monoterpenes. The sesquiterpenes included hydrocarbon α -longipinene (0.94%), humulene epoxide (2.92%), and sesquiterpene alcohols viz spathulenol (1.14%), α - bisabolol (2.73%), and α - cadinol (1.43%). Di butyl phthalate (3.65%) was the aromatic constituents. Thirty one chemical constituents were present in the trace amount less than 1%.

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