植物药与药理学杂志(网络版), 2014 年, 第 3 卷, 第 10 篇, 第 1-9 页
Zhiwuyao Yu Yaolixue Zazhi (Online), 2014, Vol.3, No.10, 1-9
http:// jpmp.5th.sophiapublisher.com

研究报告

Research Report

古伦巴社区利用民族医药治疗印度泰米尔纳德邦 Niligiri 区的肠道疾病

Deepak P. , Gopal G.V.
Regional Institute of Education, University of Mysore, Mysore, Karnataka, India
通讯作者: deepakpuravankara@gmail.com; 作者
植物药与药理学, 2014 年, 第 3 卷, 第 10 篇 doi: 10.5376/jpmp.cn.2014.03.0010
投稿日期: 2014 年 2 月 11 日
收稿日期: 2014 年 2 月 25 日
发表日期: 2014 年 2 月 28 日

摘　要　胃肠道疾病是导致发展中国家儿童和成人死亡的主要疾病。本文主要研究 Kurumba Niligiri 部落用民族医药疗法来治疗各种胃肠疾病的相关文献，并试图探讨这些未经实验的植物有哪些疗效。研究记录了用于民族医药方面的植物共有 21 种，隶属于 20 属 16 科，供患有各种胃肠疾病的伦巴族使用。这些植物根据它们的名称、俗名、药用部位等按照字母顺序排列。需要利用植物化学和药理知识对 kurumbas 这一土著疗法进行重点研究，才能进一步评估此方法对胃肠疾病的潜在疗效。

关键词　椰子岛; 古努尔; 科塔吉里; 康达路

Ethno Medicinal Studies on Kurumba Community for the Treatment of Gastro-intestinal Disorders, Niligiri District, Tamil Nadu, India

Deepak P. , Gopal G.V.
Regional Institute of Education, University of Mysore, Mysore, Karnataka, India
Corresponding author, deepakpuravankara@gmail.com; Authors

Abstract　Gastro intestinal diseases are major cause of child and adult mortality in all the developing countries. This paper mainly focuses on the documentation of ethno medicinal practices of Kurumba tribes of Niligiri district for treating various gastro-intestinal ailments and also attempted to evaluate the efficacy of these plants using a non experimental method. The study documented the ethno medicinal aspect of 21 plant species belonging to 20 genera and 16 families which are used by the Kurumba tribe for various gastro intestinal aliments. These plant species are enumerated alphabetically with their botanical names, vernacular name, family, plant parts used and the mode of preparations. The ethno pharmacological validation of the aboriginal knowledge of Kurumbas on various medicinal plants used for gastro intestinal diseases need to be subjected to various phytochemical and pharmacological studies with priority, to evaluate further potential of these treatments for gastro-intestinal disorders.

Keywords　Kurumba; Coonoor; Kotagiri; Kundah

1 背景

对植物和动物作为药物的来源，历史可以追溯到人类种族的起源。作为一门学科，民族植物学是第一个被正式承认的，用来特指被原住民使用的植物(Harshburger, 1896)。这种科学是一门多科目的学科，它包括了植物科学、历史、人类学、文化、文学的许多有趣和有用的方面。它涉及植物人类关系学，特别涉及远离文明的原始部落中植物的经济用途形势(Kaushik and Dhiman, 2000)。考虑到天然药物的重要性，也为了促进传统医药体系，世界健康组织推出了一个“人人享有健康 2000 C.E”的重大项目。1978 年，在阿拉木图举行的会议上，世界卫生组织宣布初级卫生保健是实现“人人享有健康”的关键。会议提出传统医学在实现世界大部分人口健康中扮演着非常重要的作用，对农村和部落居民更是尤为重要(Rao, 2000)。

许多工作人员都对位于泰米尔纳德邦不同部落族群的民族植物学进行了研究。Subramanyam 等(2008)在达罗毗荼泰米尔的马拉萨尔，有一个土著社群占据着西高止山脉的森林，他们被称为独特的医者和 Velliangiri 圣山植物群传统土著知识的保存者。Chellaiah 等(2006)从 Kancheepuram 地区收集记录了当地传统治疗师的本土知识和本土植物药的文献。Ignacimuthu 等(2006)调查研究了马杜赖地区的 Paliyar 部落的民族植物学。村民们

从 Dharapuram Taluk 的民族植物学研究(Balakrishnan et al, 2009)。类似的研究已经证明对特鲁瓦纳马莱山的罗摩克里希纳等人的部落的土著知识进行和部落，由 Ramakrishna 等进行(2006)，而伊鲁拉斯族，由 Subramanyam 和 Steven (2009) 进行。对村民利用 kumaragiri 山塞勒姆区原住民药用植物的研究是由 Alagesaboopathi 进行(2009)。

胃肠道疾病仍然是世界上最重要的疾病和死亡的原因之一，尤其是对年轻的儿童而言。此类疾病大部分是由暴露的污染水源或食物引起，例如，水质差，有限的饮用水，穷人的食物安全或卫生状况不佳，人们的饮食习惯问题，其中包括缺乏均衡的饮食，酗酒等。主要致病菌包括沙门氏菌、志贺氏菌、camylobacter、大肠杆菌和轮状病毒(Patel et al., 2009 年)。此类疾病大部分都伴随着各种症状，如腹泻，呕吐，血液中的粪便，心脏烧伤等。因此，目前的工作进行了重点研究，药用植物已被古伦巴部落专门用于胃肠疾病。

Nilgiri 区，又称“Nilgiris”或“Niligiri Hills”是 Tamil 最小的地区之一。从词源学上讲，“Niligiris”的意思是“蓝山”。该地区是一个 2549 平方公里的丘陵地区，位于 11 0 10’和 11 0 30’北纬 76 0 25’和 77 0 40’东经，在东、西高止山脉交界处之间，最突出的两个山脉几乎与印度半岛海岸线平行。该地区的平均海拔是 6500 平方英尺，以喀拉拉邦为西界，位于卡纳塔克邦州和泰米尔纳德邦州东南部的 Coimbatore 地区北部。高原的自然植被在草原大量散布着，并十分孤立，明确的定义，通常是小的林地。这些热带山地森林在当地被称为“sholas ', 这个词来源于 solai 的椰子岛方言词”。林港有多种植物，其中最引人注目的当然是树，它们有许多特有物种，不仅仅是乔木，灌木，花和许多种蕨类苔藓，还有兰花，藤本植物，攀缘植物，在溪流和沼泽地区的草地还有大量的蘑菇和真菌(Daniels, 1992)。六个原始部落坐落在这里，分别是 Todas，Kotas，Irulas，kattunayakas，paniyas 和 Kurumbas, kurumbas 是其中使用草药的专家。Kurumbas 地区主要驻留的是 Kundah 的 taluks，Kotagiri 和 Coonoor 主要在 Niligiri 区(图 1)。

图 1 研究地区的位置图

Figure 1 Location map of the study area

在 Kotagiri 和古努尔之间的原住地有巴德格，泰米尔，马来亚和斯里兰卡。在 Kundah taluk，Kurumbas 最近的邻居是 Badagas(Parthasarathy, 2009)。

2 结论

目前的研究主要集中在对肠胃病治疗的 kurumba 部落土著知识，研究植物共有 21 种，隶属于 20 科 16 属，被用来作为各种胃肠疾病的传统疗法(表 1)。2009~2010 年的访问对该领域进行了有效的数据收集。对收集的数据的进行初步分析(图 2)，主要用于治疗的药物制剂树叶(38%)，其次是树皮(19%)，其他部位(14.2%)，种子(9.5%)，果实(9.5%)和枝干(4.7%)。这项研究还显示，大多数口服制剂的形式为汤用粉，叶汁或树皮，应用形式有：输液(57%)，作为食品补充剂(38%)，应用腹部区域(9.5%)(图 3)。例如将蓖麻叶 Ruta 种子，天竺葵研

磨油应用于腹部疼痛区域用来缓解缓解绞痛。种子水稻是用来作为药品以及主食定期食用。最常见的胃肠疾病症状是腹泻。因此，几乎 38%的药品用于控制腹泻。

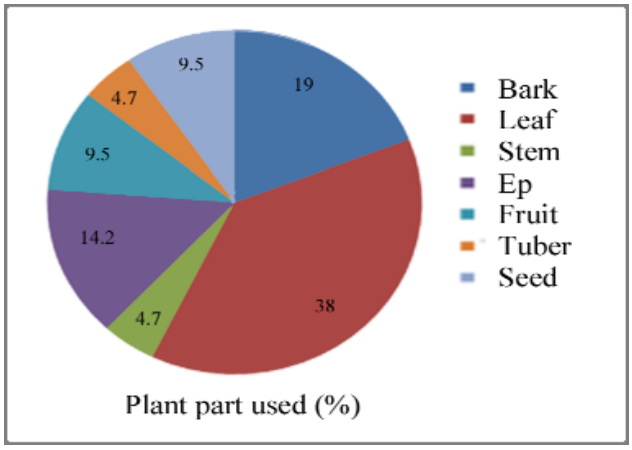

图 2 分析植物药用部位
Figure 2 Analysis of plant parts used

3 讨论

对民族植物学的研究得出了对于治疗各种胃肠疾病的描述性数据。这个过程清楚地表明，76%种植物物种下降的验证得分为 4，23%正在下降的得分为 3(图 3)。因此，kurumbas 传统医药实践需要研发一种有效治疗胃肠疾病的药物。然而，它需要进行严格化学成分及药理研究(Fransworth et al.,1985; Browner et al., 1988; Weniger and Robineau,1989)将进一步验证此数据。植物山黄麻的化学成分分析(3C)、Grewia aspera(3b)，Chenopodium ambrosiodes(3B)、Ipomoea staphylina(3b)和 Leucas sebaldiana(3b)将有助于提高验证的分数。与此同时，这些属的其他种类已被证明具有很高的药用价值如 Aspera(Willd.)*Ipomea cairica* L 传统药用实践是发展中世界的级卫生保健系统的一个重要的组成部分(Sheldon et al., 1997)。部分草药被证明比合成药物更安全。因此，基于传统知识的植物草药已成为一种新工具用于寻找新的生物活性化合物

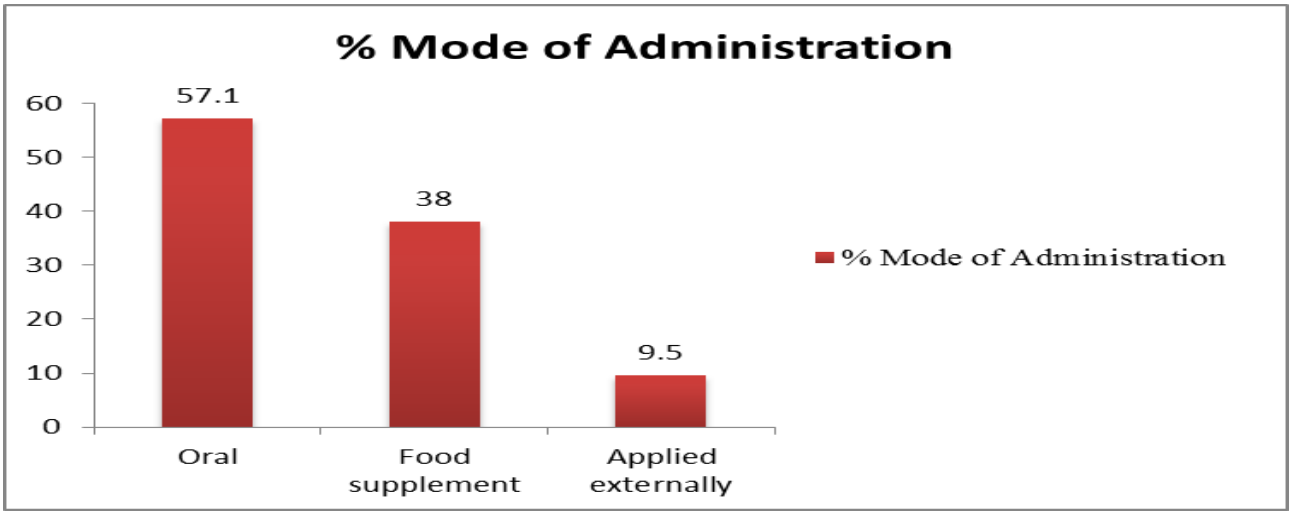

图 3 应用方式分析
Figure 3 Analysis of Mode of Administration

4 材料和方法

最广泛的民族植物学探索是在 2009~2010，在 kurumba 的三个地方，即 Kundah、Kotagiri 和 Coonoor 开展。对于本研究，共 29 个部落医士接受采访，在确定植物、草药和了解部落医学上提供帮助。有关部落巫医的细节(表 1)。参与农村评估(PRA)应用获取数据(Dilip 和 janardhana, 2012)。想要发展一个良好和谐的关系，并保证对治疗师和酋长的信心，而这往往是难以实现的，因为治疗师通常将他们的知识作为一个秘密，不愿意它

揭示给外人。药物被提供给他们，也被接受，在调查过程中，单独私下的情况下更容易接近治疗师，他们也更愿意透露他们传统的植物知识。

表 1 研究地点和受访者档案
Table 1 Profile of the study sites and the respondents

Name of the Taluk	Name of the settlements	Kurumba Gender groups		Total number of informants
		Males	Females	
Coonoor	Vellaricombai	3		3
	Pambalacombai	1	1	2
	Veeracombai	1		1
Kundah	Bellaathicombai	1	2	3
	Kothugalcombai	1	3	4
	Kinnakorai	3		3
Kotagiri	Chengalcombai	1		1
	Maralacombai	1		1
	Masanacombai		1	1

为更好的了解当地的做法，采访中提到的特定问题被迈索尔大学植物学研究所设计在问卷中(Dilip and Janardhana, 2012)(表 2)。知情同意书是将访问人的视角再现研究中，每一个访问人被访问了至少三次就是为了验证所获数据的可靠性。如果访问中所说的有关使用特定药用植物的意见与早期访问中所说的不同，那么该信息会被认为是不可靠，如果一个特定的药用植物在访问过程中变化，那么数据会被丢弃。在文档一致进行的过程中，也开展了特定的栖息地识别和收集特定治疗植物的工作。收集的信息证实了不同的部落族群居住在研究区不同的地方。

表 2 Niligiri 区 Kurumba 部落使用的药用植物调查表
Table 2 Questionnaire on medicinal plants used by the Kurumba tribes of Niligiri district

1. Name: ……..
2. Address: ……..
3. Occupation: ……
4. Date: …… Collection No: ……..
5. Taxon: …… Family: ……
6. Local name (s) (Specify language or dialect): ……..
7. Locality (specific): ……
   Habitat: ……. Monocot: …… Dicot: ……
8. Height: …… Diameter:
9. Bark Characteristics: ……
10. Smell: ……
11. Latex: Present: ……... Absent: Colour:
12. Tree parts used in medicine
    Root Stem: Twig: Rootbark: Stembark:
    Flower: Fruit: Seed:
13. How a plant is used: Fresh Dried: Boiled
14. Other plant or tree ingredient added to it
15. Method (s) of preparation for use: Powdered Extracted with cold water
    With hot water Boiled: Extracted with local gin: Any other
16. Mode of administration:
17. Dosage:
18. Any other comment on information:

以前工人所采用的方法(Jain 和 Goel, 1995)。对药用植物进行鉴定，拍照和收集制备标本。遵循方法和程序中所描述的过程来制备标本(Jain, 1989)。植物特征的基础上给出的标准识别手册芙罗拉主席马德拉斯(Gamble, 1975)，芙罗拉泰米尔纳德邦卡纳提克(Mathew, 1983)和芙罗拉南印度山站(Fyson, 1932)。

初步的民族药理学验证是一个主要的步骤，以确定哪些植物是安全或有效的，并确保临床试验时不被浪费在文化或宗教目的上。因此，这些补救措施进行了的一个非实验的验证方法(Henrich et al., 1992)。根据这一方法分为四个层次的有效性，为我们所用：(1)如果没有信息支持工厂使用这一物种，则表明该植物是不活跃

的；或这一植物的研究还没有完成；(2)一种植物(或同一属的密切相关物种)，用于地理上或时间上不同的地区，达到的有效水平都很低，如果没有进一步的化学成分或药理学信息来确定使用途径，则该植物在其他领域有积极对抗疾病的可能性。(3)如果除民族植物学显示的细节以外，化学或制药生态信息也验证了使用植物在印度，对病人是起作用的，更可能其效果要高于药效低的药物。(4)如果民族植物学、植物化学和药理信息支持植物的民间使用；它被分组为具有高效性，很可能是一种有效的补救办法。

除了记录每种药用植物的使用频率，对植物的信息将有一个深入的了解，被报告人用作物种志引用的次数远远多于被用作植物引用(Al corn, 1984)。因此，植物会根据引用人引用的频率分为三类，有的植物被资料提供人大量提及，有的则至少有三次被提及，而被纳入有效物种志(A)。那些只被两个资料提供人提出的，基本上没有医者了解的为(C)级，(B)是中间级别，此类植物属于已知植物，被几个人提出过，也有一两个医师了解。那些只被一个研究人员提出的植物没有被包含在数据库中。

致谢

诚挚感谢所有从 Kundah,Kotagiri 部落和 Conoor 海湾派来的传统医学执业医师，感谢他们分享自己的知识支持我们的研究，也感谢 Mr.Sudhakar 在 Kurumba 所属学区定居点的提。供利益冲突：我们声明，没有利益冲突。

附录

牛膝根

药效学用途:抗细菌(Tullanithi et al .,2010)，抗生育(Gupta and Sharma, 2006)，抗肿瘤，免疫兴奋剂，降血脂药，肾功能障碍，反解热剂，抗氧化剂，抗哮喘，治关节炎，用于伤口愈合、抗蛇毒心脏、抗肝炎、镇痛、用于治疗痢疾、脓漏(Dey A., 2011)

Alternanthera sessilis (L.) R.Br. ex DC.

药效用途：β–谷甾醇和莲子草其苷具有较强的抗炎和解热作用(Nayak et al., 2010)、天然抗氧化剂(Borah et al., 2011)，镇咳活性(Venkatesh et al., 2012)，抗腹泻和腹痛(Dhole et al., 2012)。

苋属

药效学用途:抗氧化剂和抗凝剂(Anitaand Ponbavani, 2013),

Berberis tinctoria Lesch.

药效学用途:肝防护和抗氧化剂研究(Kanda et al., 2005),抗炎症(Gilani et al.)小檗碱抑制激活蛋白，抑制肝癌细胞(Fukuda et al., 1999),抗细菌(Sasikumar et al ., 2007),生物碱分离出小檗碱，小檗属植物物种是各种传染病报告(WHO, 1983)，B.tinctoria 被发现拥有的潜力，氢对 DPPH 捐赠和强还原能力(Sasikumar et. al., 2009)

Carica papaya L.

药效的用途:它包含几个蛋白水解酶木瓜蛋白酶和 karpain 这有助于促进消化,抗炎症、抗肿瘤、抗镰状(Aravind et al., 2013)，抗疟疾和制作解痉药(Udoh et al., 2005)

Chenopodium ambrosiodes L.

药效学用途:驱虫治疗(Quinlan et al., 2002, Mac Donald et al., 2004)，堕胎药通经剂(Conway and Slocumb, 1979),应该使用它用作驱虫剂时，对患轮虫的狗特别有效。但它有一个味道会引起唾液分泌和胃过敏，应小心使用。尤其是儿童和年龄营养不良的人需要特别注意(British pharmacopoeia, 1953, The Dispensary of the United States of America, 1947)，Methanolic 提取 C。ambr 细胞毒性与人类肝癌细胞株是相联通的(Ruffa et al., 2002)

Citrus aurantium L.

药效学用途:膳食补充剂(Fugh and Myers, 2004),抗痉挛药(Forster et al., 1980),心脏活动(Penzak et al.,2001),富含维生素 C 和改善免疫系统(Zhu et al., 1998),与食物一起使用艾滋病毒/艾滋病患者的膳食补充剂(Nagata et al., 2011)

Cymbopogon citratus (DC.) Stapf.

药效学用途:抗菌(Hubert et al., 2012),抗真菌(Pawar, 2006),抗焦虑活性(Blanco, 2009),镇痛(Zamith, 1993)

飞扬草

药效学的用途：抗炎剂(Shih et al., 2010)抗细菌(Upadhyay et al., 2010)，止泻剂(G ávez et al., 1993 年)。影响水叶飞扬草提取物，肠道蠕动(Hore et al., 2006)，抗氧化活性(Basma et al., 2011)，Antiheptotoxic 活动(Tiwari et al., 2011)。

Grewia aspera Roxb。
用途：生药学药效学研究已在其他物种如 G.草进行，为研究降血糖和抗糖尿病活性(akthar，1992)

Ipomoea staphylina Roem. & Schult.
药效学用途：泰米尔纳德邦 Kolli 丘陵部落的 Malayali 人用来对付腹泻(Suresh 等。，2011)

Lantana indica Roxb.
药效学用途：用作发汗，肠道杀菌剂，除用作发汗剂以外，还可用于治疗破伤风，风湿和疟疾(Ghisalberti, 2000, Ojha and Dayal et al., 1992, Singh et al., 1998)。该厂还显示了一些三萜类化合物存在和固醇。从马缨丹籼稻中分离的单宁呈阳性抗菌和抗真菌活性的结果(Venkatswamy et al.，2010)

Leucas sebaldiana Sunojk。
药效学用途：这种 Leucas 没经过药理学研究，但是很多 Leucas 品种都经过药理研究确定其药用价值，可用于抗炎和抗菌(Ai Lan Chew et al., 2012)、抗疟药、解热(Murugan et al., 1998)，反氧化剂和细胞毒性(Rahman et al., 2007)

Oryza sativa L.
药效用途：抗氧化(Reshmi and Nandini, 2013)、抗菌(Sulochana and Bakiyalakshmi, 2011)，Antidiarrheal、抗癌活性、抗溃疡(Umadevi et al., 2012)。在阿育吠陀大米的药用价值中已描述：大米是辛辣的，油腻的，育肥，有利于胆汁和利尿(Caius, 1986)

Oxalis corniculata L.
药效用途：抗糖尿病、降血脂、抗氧化活性(Agila and Kavita, 2012)，治疗腹泻(Pierre et al., 2005)，降血糖活性(Krishnaveni et al., 2006)和抗生育活性(Sharangouda and Saraswathi,
2006)、抗细菌(Raghvendra et al.，2006)
药效用途：消炎解热(Dhale and Mogle et al., 2012)，癌的化学预防(Singh et al., 2011)，范围广泛的化学成分组件包括萜类、生物碱类、黄酮类化合物和单宁所具有的有用生物(Kim et al., 2005; Arora et al., 2003)，排除身体毒素(Tasduq et al., 2005)，支持神经系统和加强感官(Reddy et al., 2011)，心脏兴奋剂(Williamson., 2002)、治疗腹泻(Mahmood et al., 2011)尤其是慢性腹泻(Jayaweera, 1980)，消炎(Dang et al., 2011)

Phyllantus amarus Schumach. & Thonn.
药效用途：保肝活性(Syed et al., 2012)、抗关节炎活性(Sharad et al., 2011)，抗细菌活动(akinjogunla et al.，2010)，抗炎木脂素类过敏的行动珠子草素的分离
苦味叶下珠(kassuya et al., 2006)，抗肿瘤抗癌(rajeshkumar et al., 2002)，抗腹泻与胃肠电位(Odetola et al., 2000)。

Ruta graveolens L.
药效学用途：抗氧化和抗炎(Rathesh and Helen, 2007)，糖尿病(toserkani et al., 2011)，抗菌，抗真菌(meepagala et al.，2005)，抗雄激素(Khouri and El-Akawi, 2005)，*R. graveolens* 含有约 2%的黄酮类化合物芦丁主要植物的。具有多种药理活性的包括抗菌、抗肿瘤、止泻、抗溃疡，抗突变、保护心肌、血管扩张剂，免疫调节剂和保肝活动(Janbaz et al.,2002)

Ricinus Communis L.
药效用途：抗溃疡(Rakesh et al., 2011)，降糖(Shokeen et et al., 2008)，抗菌活性(Mathur et al., 2011)，抗菌(Islam et al., 2010)，抗炎(Saini et al., 2010)，保肝活性(VisEn et al., 1992)、抗生育(sandhyakumary et al., 2003)，平喘活性(Sani et al., 2007)，可用于抗组胺药(Taur et al.，2011)

Solanum verbiscifolium L.
药效用途：抗真菌(Flores and Bustamante, 2010)、抗出血(olowa et al., 2012)，与 MRSA 的特殊利益 antibacterialstudies(pesewu et al., 2008)

Trema orientalis (L.) Blume

药效用途：抗糖尿病(DIMO et al.，2006)，抗疟原虫活性，镇痛和止泻(Uddin et al.，2008)，抗炎(Barbera et al., 1992)，抗菌、驱虫、抗阿米巴(McGaw et al., 2000)

参考文献

Agila K.N., and Kavita R., 2012, Antidiabetic, Antihyperlipidaemic and Antioxidant activity of Oxalis corniculata in Alloxan induced Diabetic mice, J. Nat. Sci. Res., 2(7): 20-22

Abiodun O., Gbotosho G., Ajaiyeoba E., Happi T., Falade M., and Wittlin S., 2011, In vitro anti plasmodial activity and toxicity assessment of some plants from Nigerian ethnomedicine, Pharm Biol., 49 (1): 9 -14

Akhtar M.S., 1992, Hypoglycaemic activities of some indigenous medicinal plants traditionally used as anti diabetic drugs, J. Pak. Med. Assoc., 2(11): 271-277

Akinjogunla O. J., Eghafona N.O., Enabulele I. O., Mboto C. I. And Ogbemudia F. O., 2010, Antibacterial activity of ethanolic extracts of Phyllanthus amarus against extended spectrum β-lactamase producing Escherichia coli isolated from stool samples of HIV sero-positive patients with or without diarrhoea, Afr. J. Pharm. and Pharmacol., 4(6): 402-407

Alagesaboopathi C., 2009, Ethnomedicinal plants and their utilization by villagers in Kumaragiri hill of Salem district of Tamil Nadu, India, Afr. J. Trad. CAM., 6 (3): 222 - 227

Alcorn J.B., 1984, Huastec Mayan Ethnobotany, University of Texas, Press, Austin, pp. 527-528

Anita R., and Ponbavani S., 2013, Antioxidant and Anticoagulant activity in Amaranthus gangeticus L. Aqueous leaf extract. World J. Pharm. And Pharmaceutical Sci., 2(5): 2682-2688

Anonymous, 1953, British pharmacopoeia, Gen. Med. Council., The pharm. press London, pp. 134

Anonymous, 1947, The Dispensary of the United States of America, 24 th Ed. Lippin Cott. – Company London, pp. 251-53

Anonymous, 1988, Wealth of India, Berberis tinctoria (Berberidaceae), Ambastha Publication and Information Directorate, CSIR, New Delhi, India, pp.144 – 118

Aravind G., Debjit B., Duraivel S., and Harish G., 2013, Traditional and Medicinal Uses of Carica papaya. J. Med. Plant studies, 1(1), pp. 7-15

Arora S., Kaur K., and Kaur S., 2003, Indian medicinal plants as a reservoir of protective phytochemicals, Teratog Carcinog Mutagen, Suppll., pp.295-300

Balakrishnan V., Prema P., Ravindran K.C., and Philip J.R., 2009, Ethnobotanical Studies among villagers from Dharapuram Taluk, Tamil Nadu, India, Global J. of Pharmacol., 3(1): 08–14

Barbera R., Trovato A., Rapisandra A., and Ragusa S., 1992, Analgesic and antiiflammatory activity in acute and chronic condition of Trema guineense (Schum. et Thonn.) ficalho and Trema micrantha Blume extracts in rodents, Phytother. Res., 6:146-8

Basma A.A., Zakaria Z., Latha L.Y., and Sasidharan S., 2011, Antioxidant activity and phytochemical screening of the methanol extracts of Euphorbia hirta L., Asia Pacific J. Tropical Med., 4 (5): 23-26

Blanco M.M., 2009, Neurobehavioral effect of essential oil of Cymbopogon citratus in mice, J. Phytomedicine, 16(3): 265-270

Borah A., Yadav R.N.S., Unni B.G., 2011, In vitro anti oxidant and free radical scavenging activity of Alternanthera sessilis., Int. J. Pharm Sci. Res., 2: 1502-6

Browner C., Oritz de Montellaro B., and Rubel A., 1988, A methodology for cross – cultural ethnomedicinal research, Curr. Anthropol., 29: 681-702

Caius J.F., 1986, The medicinal and poisonous plants of India, Int. Rice research notes (Reprint), 24(1): 40

Chellaiah M., Muniappan A., Nagappan R., and Ignacimuthu S., 2006, Medicinal plants used by traditional healers in Kancheepuram District of Tamil Nadu, India, J. Ethnobiol. and Ethnomed., 2:43

Chew A.L., Jessica J.J.A., and Sasidharan S., 2012, Antioxidant and antibacterial activity of different parts of Leucas aspera, Asian Pacific J. tropical biomed., 2(3): 176-180

Conway G.A., and Slocumb J.C., 1979, Plants used as aboritifacients and emmenagogue by Spanish New Mexican, J. Ethno Pharmacol., 1: 241-61

Dang G.K., Parekar R.R., Kamat S.K., Scindia A.M., and Rege N.N., 2011, Antinflammatory activities of Phyllanthus emblica, Plumbago zeylanica and Cypreus rotundus in acute model of inflammation, Phyether. Res., 25(6): 904-908

Daniels R.J.R., 1992, The Nilgiri Biosphere Reserve and its role in conserving India's biodiversity, Curr. Sci. India, 64:706-708

Dey A., 2011, Achyranthes aspera L: phytochemical and Pharmacological aspects: Review article, Int. J. Pharmaceutical Sciences Review and Researches, 9(2): 013

Dhale D.A., and Mogle U.P., 2012, Phytochemical screening and antibacterial activity of Phyllanthus emblica (L.), Science Research Reporter, (3): 138 -142

Dhole J.A., Dhole N.A., and Bodke S.S., 2012, Ethnomedicinal studies of some weeds in crop fields of Marathwada region, India, Ethnobotanical leaflets, 13: 1443-52

Dilip K.E.K., and Janardhana G.R., 2012, Ethnobotanical polypharmacy of Traditional healers in Wayanad (Kerala) to treat type 2 diabetes, Indian J. Traditional Knowledge, 11: 667- 673

Dimo T., Ngueguim F.T., Kamtchouing P., Dongo E., and Tan P.V., 2006, Glucose lowering efficacy of the aqueous stem bark extracts of Trema orientalis (Linn) Blume. in normal and streptozotocin diabetic rats, Pharmazie, 3 (61): 233-6

Flores B., and Bustamante H., 2010, Estudio farmacologico y quimico biodirigido de Solanum verbascifolium L. planta utilizada para el tratamienta enfermedades infecciosas y parasitarias, MSc. thesis, University of the state of Morelos, Mexico, pp. 15-16

Forster H.B., Niklas H., and Lutz S., 1980, Antispasmodic effects of some medicinal plants, Planta medica, 40(4): 309-19

Fransworth N.R., Akerele O., Bingel A S., Soejarto D.D., and Guo Z., 1985, Medicinal Plants in therapy, World Health Organisation, Bulletin, 63 (6): 965–981

Fugh–Berman A., and Myers A., 2004, Citrus aurantium an ingredient of dietary supplements Marketed for weight loss. Current status of clinical and basic research, Exp. Biol. Med., 229: 698-704

Fukuda K., Hibiya Y., Mutoh M., Koshiji M., Akao S., and Fujiwara H., 1999, Inhibition of activator protein 1 activity by berberine in human hepatoma cells, Planta Medica, 65(4): 351 -383

Fyson P.F., 1932, The Flora of the South Indian Hill Station, Vols. 1 and 3, Govt. Press, Madras.

Galvez J., Zarzuelo A., Crespo M.E., Lorente M.D., Ocete M.A., and Jimenez J., 1993, Antidiarrhoeic activity of Euphorbia hirta extract and isolation of an active flavanoid constituent, Planta Medica, 59(4): 333-336

Gamble J.S., and Fischer C.E.C., 1959, The Flora of the Presidency of Madras, Reprinted ed., Vols. I – III, Botanical Survey of India, Calcutta

Ghisalberti E. L., 2000, Review: Lantana camara L. (Verbenaceae), Fitoterapia, 71: 467-86

Gilani A. H., and Janbaz K. H., 1995, Preventive and curative effects of Berberis aristata fruit extract on paracetamol- and CCl4- induced Hepatotoxicity, Phytotherapy Research, 9: 489-494

Goyal M.M., and Kamal K., 1984, High content of cholesterol in the leaves of Lantana indica Roxb. Indian drugs, pp.22-41

Gupta R.S., and Sharma R., 2006, A review on medicinal plants exhibiting anti infertility activity in males, Nat. Product radiance, 5(5), 389-410

Harshberger J.W., 1896, The purpose of Ethnobotany, Botanical Gazette, 21:146 - 154

Heinrich M., Rimpler H., and Barrera A., 1992, Indigenous phytotherapy of Gastro-intestinal disorders in a low land Mixe community(Oaxaca,Mexico): Ethnopharmacological evaluation, J. Ethnopharmacol., 36 (63-80)

Hore S.K., Ahuja V., Mehta G., Pradeep K., Pandey S.K., and Ahmad A.H., 2006, Effect of aqueous Euphorbia hirta leaf extract on gastro-intestinal motility, Fitoterapia, 77: 35-38

Hubert D.N., Barku Y.A.V., and Batama Joseph., 2012, Antimicrobial examinations of Cymbopogon citratus and Adiatum capillus – veneris used in Ghanaian Folkloric medicine, Int. J. Life sciences and Pharma Res., 2(2): 2-6

Ignacimuthu S., Ayyanar M., and Sivaraman S., 2006, Ethnobotanical investigations among tribes in Madurai District of Tamil Nadu, India, J. Ethnobiol. and Ethnomed., 2:25

Islam T., Bakshi H., Sam S., Sharma E., Hameed B., Rathore B., Gupta A., Ahirwar S., and Sharma M., 2010, Assessment of antibacterial potential of leaves of Ricinus communis against pathogenic and dermatophytic bacteria, Int. J. Pharma Research and Development,1(12): 1-7

Jain S. K., and Goel A. K., 1995, A Manual of Ethnobotany, (ed.) S K Jain: Scientific Publishers, Jodhpur, pp.142 -152

Jain S.K., 1989, Ethnobotany: An interdisciplinary science for holistic approach to man plant relationships, In: Jain S.K. ed., Jodhpur, Methods and Approaches in Ethnobotany, pp. 9-12

Janbaz K.H., Saeed S.A., and Gilani A.H., 2002, Protective effect of rutin on paracetamol- and CC14- induced hepatotoxicity in rodents, Fitoterpia, 73: 557-563

Jason N. M., Jew R. A., Kimeu M. J., Salmen R. C., Bukusi A. E., and Cohen. R. C., 2011, Medical pluralism of Mfangano Island: Use of medicinal plants among persons living with HIV/ AIDS in Suba District, Kenya, J. Ethnopharmacol., 135(2): 501 -509

Jayaweera D., 1980, M.A: Medicinal plants used in the Ceylon Part 2, National Science Council of Srilanka, Colombo

Kanda S.M., Yeligar V.C., Bhim C.M., and Maity T., 2005, Hepato protective and antioxidant role of Berberis tinctoria Lesch leaves on paracetamol induced hepatic damage in rats. Iranian J. Pharmacol. And Therapeutics, 4: 64-69

Kassuya C.A., Silvestre A., Menezes-de-Lima O. Jr., Marotta D.M., Rehder V.L., and Calixto J.B., 2006, Antiinflammatory and antiallodynic actions of the lignan niranthin isolated from Phyllanthus amarus. Evidence for interaction with platelet activating factor receptor, Eur. J.Pharmacol., 546(1-3): 182-8

Kaushik P., and Dhiman A.K., 2000, Medicinal Plants and raw drugs of India, In Bishan Singh and Mahendra Pal Singh (eds.), Dehra Dun, India

Kim H.J., Kimhy Y., Tohda C., Rao T.P., and Juneja L.R., 2005, Influence of amla (Embellica Officinalis Gaertn.) on hyperchloestrolemia and lipid peroxidation of cholesterol – fed rats, J. Nutr. Sci. Vitaminol, 51: 413-418

Krishnaveni A., 2006, Hyoglycemic effect of Oxalis corniculata in normal rabbits, Asian J. Exp. Sci., 1: 72-78

Khouri N.A., and El – Akawi Z., 2005, Anti androgenic activity of Ruta graveolens L in male Albino rats with emphasis on sexual and aggressive behavior, Neuroendocrinal. Lett., 26(6): 823-829

Lilybeth F. O., Mark Antony J. Tornes., Aranico E. C. and Cesar G. D., 2012, Medicinal Plants used by the Higaonon tribe of Rogongon, Iliyan city, Mindanao, Philipines, Adv. Environmental biology, 6(4) : 1442 - 1449

Mathew K.M., 1983,The Flora of the Tamil Nadu Carnatic, The Rapinet herbarium, St. Joseph's college, Tiruchirapalli, India

Mathur A., Satish K.V., Sajad Y., Santosh K.S., Prasad G.B.K.S., and Dua V.K., 2011, Antimicrobial potential of roots of Ricinus communis against pathogenic microorganisms, Int. J. Pharma and Bio Sci., 2(1): 23-24

Mac Donald D., Van Crey K., and Hannison A.O., 2004, Ascaridole-less infusions of Chenopodium ambrosioides contains a nematode that is not toxic to mammalian smooth muscle, J. Ethnopharmacol., 92: 215-21

McGaw L.J., Jager A.K., and Staden J., 2000, Antibacterial, antihelmintic and anti amoebic activity in South African medicinal plants, J.Ethnopharmacol., 72: 247-63

Meepagala K.M., Schrader K.K., Wedge D.E., and Duke S.O., 2005, Algicidal and antifungal compounds from the roots of Ruta graveolens and synthesis of their analogs, Phytochem., 66: 2689 -2695

Mehmood M.H., Siddiqi H.S., and Gilani A.H., 2011, The antidiarrhoeal and spasmolytic activities of Phyllanthus emblica are mediated through dual blockade of musacarinic receptors and Ca2+ channels, J. Ethnopharmacol., 133(2): 856-865

Murugan K., and Jeyabalan D., 1998, Effect of certain plant extracts against the mosquito, Anopheles stephensi Liston, Curr. Sci., 76: 631-633

Nayak P., Nayak S., Kar D.M., and Das P., 2010, Pharmacological evaluation of ethanolic extracts of the plant Alternanthera sessilis against temperature regulation, J. Pharmacy Res., 3: 1381-3

Odetola A.A., and Akojenu S.M., 2000, Anti-diarrhoeal and gastro-intestinal potentials of the aqueous extract of Phyllanthus amarus (Euphorbiaceae), Afr. J. Med. Sci., 29(2): 119-22

Ojha B.M., and Dayal N., 1992, Medicinal values and economic importance of an obnoxious weed Lantana, J. Eco. Tax. Bot., 16: 595-8

Patel M.M., Hall A.J., Vinje J., and Parashar U.D., 2009, Noroviruses: a comprehensive review, J. Clin. Virol., 44(1): 1-8

Parthasarathy J., 2007, Tribes & Inter Ethnic Relationship in the Nilgiri District, Tamil Nadu, TRC/HADP publication, Udhagamandalam.

Pawar V.C., 2006, In vitro efficacy of 75 essential oils against Aspergillus niger, Mycoses, 49(4):316-323

Penzak S.R., Jann M.W., Cold J.A., Hon Y.Y., Desai H.D., and Gurley B.J., 2001, Seville (Sour) orange juice: synephrine content and cardiovascular effects in normotensive adults, J. Clin. Pharmacol., 41(10): 1059-63

Pesewu G.A., Cutler R.R., and Humber D.P., 2008, Antibacterial activity of plants used in traditional medicines of Ghana with particular reference to MRSA, J. Ethnopharmacol., 116(1): 102 -11

Pierre W., Evelyne N., Telesphore B.N., Sylvie L.W., and Albert K., 2005, Antidiarrhoeal activity of aqueous and methanolic extracts of Oxalis corniculata in rats, J. Exp. Biol., 1(1): 256-60

Quinlan M.B., Quinlan R.J., and Nolan J.M., 2002, Ethnophysiology and herbal treatments of intestinal worm in Domenica, West Indies, J. Ethnopharmacol., 10: 75 -83

Raghvendra M.P., Satish S., and Raveesha K.A., 2006, Phytochemical analysis and antimicrobial activity of Oxalis corniculata, a known medicinal plant, My Science, 1: 72-78

Rahman M.S., Sadhu S.K., and Hasan C.M., 2007, Priliminary antinociceptive, antioxidant and cytotoxic activities of Leucas aspera root, Fitoterapia, 78: 552-555

Rajeshkumar N.V., Joy K.L., Girija K., Ramsewak R.S., Muraleedharan G. N., and Ramadasan K., 2002, Antitumour and anticarcinogenic activity of Phyllanthus amarus extract, J. Ethnopharmacol., 81(1):17-22

Rakesh R. M., Prasad K. M., and Rajkumar S. V., 2011,Evaluation of antiulcer activity of castor oil in rats, Int. J. Research in Ayurveda & Pharmacy, 2(4):1349-1353

Ramakrishnan N., Pandian G., Sampath K.S., and Hariprasad P., 2006, Medicinal Plant diversity in Tiruvannamalai hills of Tamil Nadu, India,

Economic valuation of wetlands technical report, IISc, Lake Programme proceedings, 4: 11-13

Rao C.K., 2000, Database of medicinal plants. Department of Forests, Environment and Ecology (DFEE), Government of Karnataka, Published by Karnataka State Council for Science and Technology, pp.20-53

Ratheesh M., Helen A., 2007, Anti inflammatory activity of Ruta graveolens Linn on carrageenan induced paw edema in wistar male rats, Afr. J. Biotechnol., 6(10): 1209-1211

Reddy V.D., Padmavathi P., Kavita G., Gopi S., Varadacharyulu N., 2011, Emblica officinalis ameliorates alcohol induced brain mitochondrial dysfunction in rats, J. Med. Food, 14(1-2): 62-68

Reshmi R. and Nandini P.V., 2013, Therapeutic value of Indian medicinal rice (Oryza sativa L.) CV. Njavara, Int. J. Food and Nutritional Sci., 2(1): 23-24

Ruffa M.J., Ferraro G., and Wayner M.L., 2002, Cytotoxic effect of Argentinean medicinal plant extracts on human hepato cellular carcinoma cell line, J. Ethnopharmacol., 79: 335–339

Sasikumar J.M., Thayumanavan T.H.A., Subash kumar R., Janardhanan K. and Lakhmanaperumalsamy P., 2007, Antibacterial activity of some ethnomedicinal plants from the Niligiris, Tamil Nadu, J. Nat. Product, 6: 34-39

Sasikumar J.M., Maheshu V. and Jayadev R., 2009, In vitro antioxidant activity of methanolic extracts of Berberis tinctoria Lesch root and root bark, J. herbal medicine Toxicol., 3: 53 -58

Sandhyakumary K., Bobby R.G., and Indira M., 2003, Antifertility effects of Ricinus communis Linn. on rats, Phytother. Res., 17: 508 -511

Saini A.K., Goyal R., Gauttam V.K., and Kalia N.A., 2010, Evaluation of anti inflammatory potential of Ricinus communis Linn. Leaves extracts and its flavanoids content in Wistar rats, J. Chem. and Pharmaceutical Res., 2(5): 690-695

Sani U.M., and Sule M.I., 2007, Antiinfertility activity of Methanol extracts of three different seed varieties of Ricinus communis Linn. (Euphorbiaceae), Nig. J. Pharm. Sci., 6(2): 78-83

Sharangouda K., and Saraswathi B.P., 2006, Post- coital antifertility activity of whole plant of Oxalis corniculata (Oxalidaceae) on female albino rats, Pak. J. Pharm Sci., 1: 63-7

Sharad M. Mali., Sinnathambi A., Kapase C. U., Bodhankar S. L., and Mahadik K. R., 2011, Anti-arthritic activity of standardised extract of Phyllanthus amarus in Freund's complete adjuvant induced arthritis, Biomedicine & Aging Pathology, 1:185–190

Shih M.F., Cheng Y.D., Shen C.R., and Cherng J.Y., 2010, A molecular pharmacology study into the anti-inflammatory actions of Euphorbia hirta L. on the LPS-induced RAW 264.7 cells through selective iNOS protein inhibition, J. Nat. Med., 64(3): 330-5

Shledon J.W., Balick M.J., and Laird S.A., 1997, Medicinal plants: can utilization and conservation coexist, Advances in Economic Botany, Economic Botany, 12: 1-104

Shokeen P., Anand P., Murali Y.K., and Tandon V., 2008, Antidiabetic activity of 50% ethanolic extract of Ricinus communis and its purified fractions, Int. Food and chemical Toxicol., 46: 3458-3466

Singh E., Sharma S., Pareek A., Diwedi J., Yadav S., and Sharma S., 2011, Phytochemistry, Traditional uses and cancer chemopreventive activityof Amla (Phyllanthus emblica): The sustainer, J. App. Pharm Sci. 02(01): 176-183

Singh S.K., Tripathi V.J., and Singh R.H., 1998, A new pentacyclic triterpene acid and Lantana indica ., J. Nat. Product, 61:1293-1295

Sulochana S., and Bakiyalakshmi S.V., 2011, Effect of neutraceutical dosa on antimicrobial activity, Int. J. Envt. Sciences, (5): 725-735

Subramanyam R., Newmaster G.S., Murugesan M., Balasubramaniam V., and Muneer M., 2008, Consensus of the 'Malasars' traditional aboriginal knowledge of medicinal plants in the Velliangiri holy hills, India, J. Ethnobiol. and Ethnomed., 4:8

Subramanyam R., and Steven G.N., 2009, Valorizing the 'Irulas' traditional knowledge of medicinal plants in the Kodiakkarai Reserve Forest, India. J. Ethnobiol. and Ethnomed., 5:10

Suresh K., Kottaimuthu R., Norman S.J., Kumuthakalavalli R., and Simon S.M., 2011, Ethnobotanical study of medicinal plants used by Malayali tribals in Kolli Hills of Tamil nadu, India, Int. J. Research in Ayurveda & Pharmacy, 2(2): 502-508

Syed Asad B., Iqbal M.M., Kiranmai M., and Ibrahim M., 2012, Hepatoprotective Activity of Phyllanthus amarus Seeds Extracts in CCl4 Treated Rats: In vitro & In vivo, Global J. Med. Res., 12 (6)

Tasduq S.A., Mondhe D.M., Gupta D.K., Baleshwar M., and Johri R.K., 2005, Reversal of fibrogenic events in liver by Emblica officinalis (fruit), an Indian drug, Biol. Pharm Bull., 28(7): 1304-1304

Taur J. D., and Patil R.Y., 2011, Anti asthamatic activity of Ricinus communis L. roots, Asia Pacific J. of Tropical biomedicine, 29(5): 139-141

Toserkani A., Jalali M.R., and Najafzaheh H., 2011, Changes in the lipid profiles, glucose and hemogram after administration of Ruta graveolens extract in diabetic rats, Comp. Clin. Pathol., 10: 1331 -1333

Tullanithi K.M., Sharmila B., and Gnanendra T.S., 2010, Preliminary Phytochemical analysis and anti microbial activity of Achyranthes aspera L, Int. J. biological technology, 1(3): 35-38

Tiwari P., Kumar K., Pandey A.K., Pandey A., and Sahu P.K., 2011, Antiheptotoxic Activity of Euphorbia hirta and Boerhaavia diffusa extracts on some experimental models of Liver injury in Rats, Int. J. Innovative Pharm Res., 2: 126-130

Uddin S.N., Uddin K.M., and Ahmed F., 2008, Analgesic and Antidiarrhoeal activities of Trema orientalis Linn. in mice, Orient Pharm. Exp. Med., 8: 187-91

Udoh P., Essien I., and Udoh F., 2005, Effect of Carica papaya [paw paw] seed extract on the morphology of pituitary – gonodal axis of male wistar rats, Phytother. Res., 19: 1065-8

Umadevi M., Puspa R., Sampathkumar K.P., and Bhowmik D., 2012, Rice traditional Medicinal Plant in India, J. of Pharmacognosy andPhytochemistry, 1(1)

Upadhyay B., Singh K.P., and Ashwani Kumar., 2010, Pharmacognostical and antibacterial studies of different extracts of Euphorbia hirta L., J. Phytol., 2(6): 55-60

Venkatesh A., Silambujanaki K., Raju D., and Elumalai A., 2012, Evaluation of Anti tussive activity of Alternanthera sessilis, Res. J. Pharmacology and Pharmacodynamics, 4(4): 233-236

Venkatswamy R., Doss A., Sukumar M., and Mubarack H.M., 2010, Preliminary phytochemical screening and antimicrobial studies of Lantana indica Roxb. , Indian J. Pharm. Sci., 72(2): 229-231

Visen P.K.S., Shukla B., Patanaik G.K., Tripathi S.C., Kulshreshtha D.K., Srimal R.C., and Dhawan B.N., 1992, Hepatoprotective activity of Ricinus communis leaves. Int. Pharmaceutical Biology, 30(4): 241-250

Weniger B., and Robineau L., 1989, Elements pour une Pharmacopee Caraibe, Ed. Corripio, Santo Domingo, Rep. Dominicana

Williamson E.M., 2002, Major herbs of Ayurveda, Churchill-livingstone,London

Zamith H.P., Vidal M. N., Speit G., and Paumgartten F. J., 1993, Absence of genotoxic activity of beta – myrcene in the in vivo cytogenetic bone marrow assay, Braz. J. Med. Biol. Res. 26(1): 93- 8

Zhu Y-P., 1998, Chinese Materia Medica: Chemistry, Pharmacology and Applications, Canada: Harwood Academic Publishers.