Table SI. Traditional usesof the plant Ap

Traditional Medicinal System	Uses	References
Ayurvedic	Fever, liver diseases, torpid liver, vitiligo	(1-7)
Traditional Indian medicine	Snake-bites (topical use),skin infections (topical use), peptic ulcer, diabetes, dysentery, enteritis,	(8-11)
Unani medicine	Seasonal and chronic fevers, anti-inflammatory, gastric and liver tonic, loss of appetite, antipyretic, aperient, astringent, boils, carminative diuretic, dyspepsia associated with gaseous distension, dysentery, emmenagogue, emollient, general debility, gonorrhea, leprosy, scabies, skin eruptions	(12)
Traditional Chinese medicine	Snake bites, infections, fever, inflammation, common cold, cough with thick sputum, burn, carbuncle, cervical erosion, chicken pox, neonatal subcutaneous annular ulcer, hepatitis, herpes zoster, detoxicant, detumescent, diarrhoea, dispel toxins of the body, dysentery, eczema, epidemic encephalitis B, laryngitis, mumps, neurodermatitis, pelvic inflammation, pharyngitis, pharyngolaryngitis, sores, suppurative otitis media, tonsillitis, vaginitis	(12,13)

Table SII.Total compounds identified in the crude methanolic extract of *Andrographis paniculata* using gas chromatography-mass spectrometryanalysis with its retention time, peak area, and reported biological activities. Of the 21 compounds identified, 4 of them are known to exhibited antioxidant capacity and 5 of them possessed anti-inflammatory potential, 6 compounds had anti-cancer and anti-tumor potential while antimicrobial activities were determined in 9 of the compounds.

S. No	Compounds	Formula	Molecular weight (g/mol)	Retention time	Area %	Biological activities	References
1.	2-Propenoic acid	$C_4H_6O_2$	86	2.847	1.76	Antibacterial	(14)
2.	3-Furanmethanol	$C_5H_6O_2$	98	3.885	1.03	anticancer, anti-inflammatory and antimicrobial activity	(15)
4.	Dimethyl sulfone	$C_2H_6O_2S$	94	4.625	3.93	Antibiotic, anti-inflammatory andanticancer	(16)
5.	1,2-Cyclopentanedione	$C_5H_6O_2$	98	4.777	2.33	Prevents gastrointestinal tumor growth	(17)
6.	3,5-Dihydroxy-6-methyl-2,3-dihydro-4H-pyran-4-one	$C_6H_8O_4$	144	7.69	3.15	Free radical scavenging activity	(18)
7.	Benzofuran, 2,3-dihydro-Coumaran	C_8H_8O	120	8.55	1.74	anti-inflammatory	(19)
8.	5-Hydroxymethylfurfural	$C_6H_6O_3$	126	8.66	4.75	Antimicrobial, anti-inflammatory, antioxidant	(20)

9	3,5-Dimethylanisole	$C_9H_{12}O$	136	11.10	1.23	antimicrobial,anti-inflammatory and antioxidant	(21)
10.	2(4H)-Benzofuranone	$C_{11}H_{16}O_2$	180	12.18	0.59	analgesic, antidiabetic, antibacterial, and antifungal	(14)
11.	2-Pentadecanone	$C_{18}H_{36}O$	268	14.95	0.52	Hypocholesterolemic, antioxidant, and lubrication	(22)
12.	9-Heptadecanone	$C_{17}H_{34}O$	254	15.23	0.57	Allelopathic, Antibacterial	(23)
13.	Hexadecanoic acid	$C_{17}H_{34}O_2$	270	15.65	1.17	Antitumor, antifungal, nematicide, antioxidant, hypocholesterolemic, 5-Alpha reductase inhibitor, chemopreventive, potent antimicrobial activity, antibacterial, antioxidant, immunostimulant, and lipoxygenase inhibitor, pesticide	(24)
14.	Dibutyl phthalate	$C_{16}H_{22}O_4$	278	15.93	0.87	Antimicrobial, antitumor	(25)
15.	1-Ascorbic acid 2,6-dihexadecanoate	$C_{38}H_{68}O_8$	652	15.99	2.30	antiproliferative efficacy	(26)
16.	Benzenepropanoic acid	$C_{11}H_{14}O_4$	210	16.24	0.89	Antifungal, antioxidant	(27)
17.	9,12-Octadecadienoicacid	$C_{19}H_{34}O_2$	294	17.01	0.57	anticancer	(28)
18.	8,11,14-Docosatrienoic acid	$C_{23}H_{40}O_2$	348	17.06	0.89	Nutrient, energy source, emulsifier, surfactant, cardioprotective	(29)