1. Trivedi Neha and Rawal UM (2000) in their article titled Aqueous extract of *A. paniculata* inhibited BHC (hexa chlorocyclo hexane) induced liver toxicity in swiss male mice as assessed by the bio-chemical values. It was observed that *A. paniculata* has significant hepatoprotective activity.

2. Trivedi PN & Rawal UM (2001) in their article titled, *A. paniculata* treatment prevents BHC induced increases in the activities of enzymes his result indicates antioxidant and hepatoprotective action of *A. paniculata*.


4. Ahmad N (2005) in his article titled, the effect of the *A. paniculata* ethanolic extract on glucuronidation reaction in rat liver microsomes were examined under both in vivo and in vitro conditions.

5. Xu Y et al. (2006) stated that an aqueous extract of *Andrographis paniculata* and its active compound andrographolide were investigated for their antimicrobial activity against nine bacterial species using the disc diffusion method. It was concluded that the observed antimicrobial activity was due to other principles present in the extract.

6. Vijay Kumar K, et al. (2007) in their article stated that, Andrographolide is an anti-inflammatory, antipyretic, anti-viral, immunostimulatory, anti-hypoglycemic and antioxidant agent.


8. Jarukamjorn K and Nemoto N (2008) stated that, for compiling consequential compendium of pharmacological benefits of health on this plant and its major diterpenoid constituent andrographolide that have been tested in various experimental models using modern scientific methodologies.

10. **Ankita Kataky and Handique (2010)** stated that a number of diterpenoids and glucosides of similar carbon skeleton have been isolated *A. paniculata*, mainly the best bitter compounds are andrographolide, neoandrographolide, deoxyandrographolide.


12. **Kulyal P, et.al (2010)** in his study analyse the phytochemical investigation of the aerial part of *A. paniculata* give diterpenic constituents andrographolide, 14-deoxy-11, 12-didehydro andrographolide, 14-deoxy andrographolide, 3,14-dideoxy andrographolide, 14-deoxy-11-oxoandrographolide, 14-deoxy-12-dihydro andrographolide, neoandrographolide, andrographilide and 14-deoxyandrographolide.

13. **Roy S, et.al (2010)** stated that the chemical composition of *A. paniculata* extracts by GC-MS analysis show 41 known compounds and 10 unknown compounds.

14. **Sukesh K, et.al (2011)** said that TLC of *A. paniculata* chloroform extract shows spot at solvent system CHCl₃ (100%)-3 spot, CHCl₃-EtOH (9:1) 5 spot, CHCl₃-EtoH (9.5:0.5), CHCl₃-EtOH (9:1)-3 spot, CHCl₃-EtOH (7:3)-6 spot at different Rf value.

15. **Sathiyaraj K, et.al (2011)** in his article titled, To evaluate the effect of anti-fertility in aqueous leaf extract of *A. paniculata* has been studied in Albino rats.

16. **Ozolua RI, et.al (2011)** in their study concluded that andrographolide contributes at least in part to the relaxant action of A.P. on tracheal smooth muscles.

17. **Chao WW and Lin BF (2012)** in his article titled, *A. paniculata* extract and bioactive compounds and it’s derivative shows antiinflammatory and anti-hepatotoxic properties. Neoandrographolide have immunostimulatory, anti-antherosclerotic and anti-hepatotoxic activities.

18. **Singh A et. al (2012)** stated that According to Ayurveda importal actions of *A. paniculata* balances both Kapha and Pitta Dosha : so it can be used in all health problems originating from aggravation of Pitta or Kapha or both.
19. Adegboyega AM & Oyewole BM (2013) told that phytochemicals are the non-nutritive plant chemicals that have protective or disease preventive properties well known examples include phenol, saponins, unsaturated lactones, cytogenic glycosides.

20. Vidyalakshmi A and Ananthi S (2013) in their article stated that Callus and suspension cultures of A. paniculata are known to produce only paniculides and not andrographolide, that are produced by the intact plant.


22. Anitha R and Raynukaa D (2013) in his article stated the antibacterial property exhibited by the extracts were due to the presence of andrographolide which was confirmed by HPLC analysis.

23. Ahmad MS, et.al (2014) in their study stated that A. paniculata extracts significantly reduced the number of aberrant cells and frequencies of aberration per cell at each concentration and duration of exposure in vivo.


25. Joselin J, Jeeva S (2014) in his article titled, Alcoholic extract of A. paniculata and its bioactive compound andrographolids have great potential against fungi. Thus it is used in the treatment of infectious diseases caused by resistant microbes.

26. Siva Kumar V and Rajesh Kumar S (2015) in his article stated that, A. paniculata related drug development efforts presently include both herbal medicine based approaches in the form of standardised complex extracts as well as orthodox.

27. Mitchell L, et.al (2015) in their article told that the ethanol extract of A. paniculata offers a promising therapeutic value in prevention of diabetes.

28. Dwivedi D, et.al (2015) in his article stated that the process of cooling crystallisation was effectively employed for purification of andrographolide with the recovery of 95% andrographolide with high purity. The phytochemical screening of leaves extracts shows the presence of alkaloids, steroids, flavonoids, tannins, triterpenoids, quinones, protein,
sugar, gum. FTIR analysis shows the presence of possible compounds in the prepared extracts.

29. Chandran RP, et.al (2017) state that the percentage of extractives of different solvent extracts are- Hexane 10.8, Chloroform 12.4, Dichloromethane 14.3, ethyl acetate 24.6, acetone 10.3, methanol 11.6 and distilled water 11.3. It means ethyl acetate extract showed the highest percentage of extractive whereas acetone lowest percentage.

30. Hema D, et.al (2017) in his article stated that High heritability coupled with high genetic advance as percentage of mean was found in the character no. of tertiary branches, plant, days of 50% flowering, andrographolide content followed by harvest dry weight and plant height.

31. John SP, et.al (2018) in his article titled, the ethanolic extract of *A. paniculata* significantly increases mean survival time and the protection fold, but could not protect animals from death when used alone. The higher dose i.e. 2 g/kg was found better than that of the lower. The observation demonstrate the anti cobra venom activity of ethanolic extract of *A. paniculata*.

32. Ukpanukpong RU, et.al (2018) in his article titled, *A. paniculata* leaf extracts showed significant anti-diarrheal activity in dose dependent ratio on animal models as depicted in the positive activity of *A. paniculata* leaf in castor oil diarrhoea induced rats. Phytochemical constituents alkaloids, tannins, flavonoids, terpenoids, steroids and saponins may be responsible for the in vivo anti diarrhoea and antihepatic activities.

33. Wang HC, et.al (2018) in his article titled, Andrographolide found in large quantities in *A. paniculata* Nees is anti-inflammatory, especially in the Central Nervous System (CNS) glia. Andrographolide reduced mechanical allodynia more than NSAIDS at the same concentration and the observed behaviour was associated with a reduction in inflammatory cytokine produced in the spinal cord.

34. Huang S et.al (2018) in his article stated that, different phytochemicals have been found to possess a wide range of activities, which may help in protection against chronic diseases. For example, alkaloids protect against chronic disease, saponins protect against hypercholesterolemia and posses antibiotic properties steroids and triterpenoids show the analgesic properties. The steroid and saponins were responsible for central nervous system.