

REVIEWER'S REPORT

Manuscript No.: IJAR-58531

Title: ANTIMICROBIAL EFFICACY OF *HEMIGRAPHIS COLORATA* ETHANOLIC EXTRACT AGAINST CARIOGENIC BACTERIA ASSOCIATED WITH PRIMARY TEETH: AN IN VITRO STUDY.

Recommendation:

Accept as it is

Accept after minor revision...

Accept after major revision

Do not accept (*Reasons below*)

Rating	Excel.	Good	Fair	Poor
Originality		Good		
Techn. Quality	Excellent			
Clarity	Excellent			
Significance	Excellent			

Reviewer's ID: Dr. Sumathi

Detailed Reviewer's Report

- Hemigraphis colorata***, widely known as the Purple Waffle Plant or Red Flame Ivy, is a tropical, low-growing herbaceous perennial. Native to Southeast Asia, it is prized for its metallic, wrinkly leaves that feature bright green tops and deep purple undersides.
- An ethanolic extract is a solution created by using ethanol (alcohol) as a solvent to draw bioactive compounds—such as polyphenols, flavonoids, and active plant ingredients—out of raw materials like herbs or roots. It is widely used in pharmaceuticals, botanical tinctures, cosmetics, and food manufacturing due to its ability to safely dissolve both water-soluble and oil-soluble molecules.
- Antimicrobial activity refers to the ability of a substance to kill or inhibit the growth of microorganisms, including bacteria, fungi, and viruses. It is measured in laboratories using methods like the disk-diffusion test or agar dilution, which reveal how effectively a compound—like an antibiotic or plant extract—disrupts microbial cell walls or enzymes.

REVIEWER'S REPORT

4. *Streptococcus mutans* is a naturally occurring, spherical bacterium found in the human mouth. It is the primary contributor to tooth decay (dental caries) because it metabolizes dietary sugars into lactic acid, which erodes tooth enamel.
5. *Lactobacillus acidophilus* is a beneficial "good" bacteria naturally found in your intestines, mouth, and vagina. As a common probiotic, it produces lactic acid, which helps maintain healthy pH levels, breaks down food, aids in nutrient absorption, and prevents harmful bacteria from overgrowing.
6. Primary teeth, often called baby or milk teeth, are the first set of 20 teeth (8 incisors, 4 canines, 8 molars) that emerge between six months and three years of age. They are crucial for chewing, clear speech development, and holding space for the permanent teeth that will eventually replace them.
7. Dental caries, commonly known as cavities or tooth decay, is the breakdown of tooth enamel caused by acids produced by bacteria in plaque. When bacteria feed on sugars in your food and drinks, they produce acid that erodes the tooth's surface over time.
8. Pediatric dentistry is the branch of dentistry dealing with the oral health of children from infancy through adolescence. Recognized as an age-defined specialty, it focuses on preventive care, growth and development monitoring, and treating oral health conditions in kids, including those with special health care needs.
9. Key words are excellent.
10. Significant points with research topic are very good for scientific area.
11. Result part is awesome with pictures but can be included tables with pie chart for values.
12. Summary points also be added.
13. References should be with alphabetical order.
14. After those changes good to publish in your journal.