

Review of: "Efficacy of Anogeissus leiocarpus as a Therapeutic Agent for Some Pathogenic Bacteria"

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Potential competing interests: No potential competing interests to declare.

The paper titled 'Efficacy of Anogeissus leiocarpus as a Therapeutic Agent for Some Pathogenic Bacteria' presents important and novel results. However, there is a lack of clarity in the grammar, the tables need to be made easier to understand, and the discussion should be expanded. Here are my suggestions:

In the '**Abstract**' section, there is a missing space between the words 'of' and 'Anogeissus'."

"The hydroxyl radical scavenging values of the ethanol and aqueous extracts were 0.56 ± 0.60 and 73 ± 0.4 , FRAP (1.86 ± 0.11 and 1.24 ± 0.2), DPPH (1.79 ± 1.3 and 1.61 ± 0.1) mg of ascorbic acid/1 g dry leaves sample respectively" instead of "The hydroxyl radical scavenging values of the ethanol and aqueous extracts are 0.56 ± 0.60 and 73 ± 0.4 , FRAP (1.86 ± 0.11 and 1.24 ± 0.2), DPPH (1.79 ± 1.3 and 1.61 ± 0.1) mg of ascorbic acid/1 g dry leaves sample respectively"

In the '**Introduction**' section

"Organisms that cause respiratory infection such as Staphylococcus aureus, Streptococcus pneumoniae as well as Pseudomonas aeruginosa (Aylana and Gili, 2016) and Enterobacteriaceae, which cause diarrhoea and urinary tract infections, are now resistant to nearly all previous antibiotics (Breijyeh et al., 2020)" **instead of** "Organisms that cause respiratory infection such as Staphylococcus aureus, Streptococcus pneumoniae as well and Pseudomonas aeruginosa (Aylana and Gili, 2016) and Enterobacteriaceae, which cause diarrhoea and urinary tract infections are now resistant to nearly all previous antibiotics (Breijyeh et al., 2020)"

On the '**Bacteria species**' section, more precisely after the sentence "Therefore, the pure isolates were Gram-stained and characterized with biochemical tests for verification and authenticity," a bibliographic citation should be added.

On the '**Preparation of inoculums**' section, a bibliographic citation should be added.

On the '**The extracts phytochemical qualitative analysis**' section, the phrase "The phytochemicals tested **were** saponins, glycosides, tannin, flavonoids, alkaloids, steroids, phlobatannins" **instead of** "The phytochemicals tested are saponins, glycosides, tannin, flavonoids, alkaloids, steroids, phlobatannins"

On the '**Total Phenolic Compounds Determination**' section, the phrase "The mixture was vigorously shaken and allowed to stand for 2 hours, after which the absorbance was **measured** at 765 nm" **instead of** "The mixture was vigorously shaken and allowed to stand for 2 hours, after which the absorbance was taken at 765 nm."

In both the '**Minimum Inhibitory Concentration (MIC) Determination**' and '**Minimum Bactericidal Concentration (MBC) Determination**' sections, a bibliographic citation should be added.

Check grammar in general. Many sentences are missing a final period. In several other sentences, there are missing spaces between words.

On the '**Results**' section

"The chemicals screened from the leaf extracts qualitatively and quantitatively were flavonoids, steroids, alkaloids, terpenoids, tannins, phenol, and glycoside, which were not present in the aqueous extract qualitatively" **instead of** "The chemicals screened from the leaf extracts qualitatively and quantitatively are flavonoids, steroids, alkaloids, terpenoids, tannins, phenol, and glycoside, which were not present in the aqueous extract qualitatively"

"However, the quantity and quality of phytochemicals were more in the ethanol extract than in the aqueous extract" **should be replaced by** "However, the quantity and quality of phytochemicals were higher in the ethanol extract than in the aqueous extract."

"Observation from this study proved ethanol extract of higher potency than aqueous extract except on *P. aeruginosa* where a higher inhibition zone was observed with aqueous extract (Table 2)" **should be replaced by** "Observations from this study showed that the ethanol extract had a higher potency than the aqueous extract, except against *P. aeruginosa*, where a larger inhibition zone was observed with the aqueous extract (Table 2)."

Tables 2 and 3 are difficult to understand. I recommend separating the values into columns.

The units for each determination are missing in these paragraphs:

"The lipid contents of the ethanol leaf extract were 4.18 ± 0.4 and 3.11 ± 0.2 for the aqueous extract. Crude protein content was 15.36 ± 0.5 and 15.36 ± 0.5 for ethanol and aqueous extracts respectively. The ash contents were 6.24 ± 1.5 and 5.28 ± 0.4 for ethanol and aqueous extracts respectively. The carbohydrate content for ethanol was 68.16 ± 1.2 and 56.27 ± 0.6 for the aqueous extract. The crude fibre content was higher in the aqueous extracts (7.34 ± 1.4) than in the ethanol extract (6.56 ± 1.6) (Table 3)".

"The amount of nitrogen content in the ethanol extract was 4.16 while it was 4.12 in the aqueous extract. Calcium content was 1.25 and 1.20% for ethanol and aqueous extracts respectively. Sodium was 0.62% in the ethanol extract and 0.58% in the aqueous extract. The magnesium content in the extracts was 0.64% and 0.62% for the ethanol and aqueous respectively. Phosphorus measured 1.54% and 1.53% for the ethanol and aqueous extracts respectively. The potassium content of the extracts was 2.03% in the ethanol and 2.01% in the aqueous (Table 4)"

The title of Table 5 is grammatically incorrect.

In the '**Discussion and Conclusion**' section, the grammar lacks clarity. Many sentences are unclear or poorly written. Here are just a few examples:

“Phytochemicals such as saponin, terpene, flavonoids, tannin, steroids and flavonoids have been reported present in *A. leiocarpus*” **should be replaced by** “Phytochemicals such as saponins, terpenes, tannins, steroids, and flavonoids have been reported in *A. leiocarpus*.”

“Several plants known to possess such phytoconstituents have been reported in several kinds of literature and are employed in folklore medicine” **should be replaced by** “Several plants known to possess these phytoconstituents have been reported in various studies and are used in traditional medicine.”

Discussion with other authors is missing in the antioxidant results (I found only one). It doesn't matter if they didn't use the same extract, but it is important to compare and discuss with previous work that used different extracts on the same bacteria or the same extracts on different bacteria. The same applies to the discussion of minerals. Research other authors who have worked with similar extracts, see if the extract under study has more or less of the minerals, etc.

The bibliographic citations do not follow a consistent style. Various styles are observed. Standardize the format.