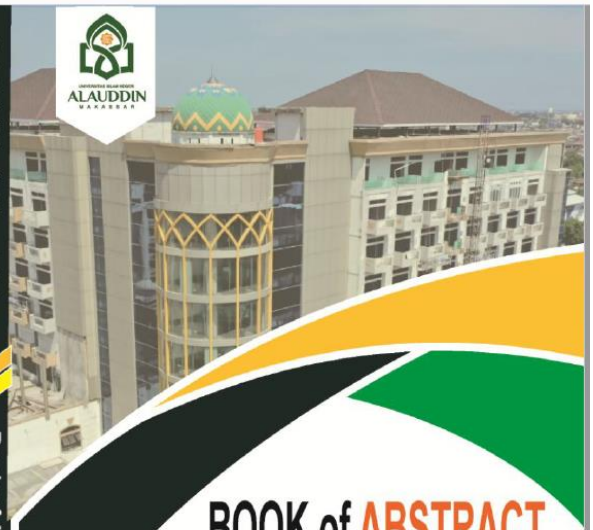
ALAUDDIN
MAKASSAR

MEDICAL AND HEALTH SCIENCE FACULTY

MAKASSAR, 27th-28th AUGUST 2022

The 1st Alauddin Health and Medical International Conference

Book of Abstract Alhamdic 2022



BOOK of ABSTRACT

ALAUDDIN HEALTH AND MEDICAL INTERNATIONAL CONFERENCE

NOVOTEL HOTEL, 27th-28th AUGUST 2022

UNIVERSITAS ISLAM NEGERI ALAUDDIN MAKASSAR
MEDICAL AND HEALTH SCIENCE FACULTY

Introduction

Dr. Syatirah Djalaluddin, SpA., M.Kes

Dean of Medical and Health Science Faculty, Universitas Islam Negeri Alauddin Makassar

Medical and Health Science Faculty, Universitas Islam Negeri Alauddin Makassar hold the **Alauddin Health and Medical International Conference (Alhamdic) 2022** with the theme *"Advance Technology in Health and Medicine in Improve Quality of Life"*. This activity aims to be a forum for socializing and exchanging ideas and experiences related to technological advances in health and medicine in improving the quality of life. In addition to this program, it is expected that stakeholders, industries, and researchers can establish business or research collaboration that focus on key issues in the future on a national and international scale.

The program activity will be in the form of a scientific seminar consisting of plenary lectures, oral presentations and poster presentations. The target participants are either practitioners or academics (lecturers, researchers and students) in the health and medical fields, from within and outside the country.

The main objective of this program is to socialize and increase knowledge about technological advances in health and medicine in improving the quality of life. Specifically, this activity aims to:

- As a medium for meeting and exchanging information between researchers and business partners
- As a means of socializing and identifying the level of understanding of the general public about technological advances in health and medicine in improving the quality of life
- Develop research networks and other collaborations in the field of health and medicine both on a national and international scale

Thank you for participating and see you at the next scientific event

Campus Map

Fakultas Kedokteran Dan Ilmu Kesehatan

UIN Alauddin Makassar

https://www.google.com/maps/@-5.2055754,119.4986499,237m/data=!3m1!1e3

PROGRAM AT A GLANCE OF ALHAMDIC (ALAUDDIN HEALTH & MEDICAL INTERNATIONAL CONFERENCE)

MEDICAL & HEALTH SCIENCE FACULTY OF UIN ALAUDDIN MAKASSAR, INDONESIA

Time	AGENDA 1st Day (27th August 2022)	PIC	ROOM
07.30-08.30	Registration	Committee	Registration Desk
	Opening Ceremony	MC	Ballroom
08.30-08.32	Welcome Speech by MC		
08.32-08.42	Traditional Dance" Paddupa" By Rufaidah		
08.43-08.45	National Anthem "Indonesia Raya" & Mars UIN Alauddin Makassar		
08.45-08.50	Recitation of the Holy Qur'an By Gori Rahmat Hidayat,S.Sos		
08.50-08.55	Opening Speech: Dean of Medical and Health Science Faculty UIN Alauddin Makassar: Dr. dr. Syatirah, Sp.A, M.Kes		
08.55-09.00	Opening Speech: Rector of UIN Alauddin Makassar: Prof. Hamdan Juhanis, Ph.D		
09.00-09.05	Opening Speech & Opening The Conference Officially: Governor of South Sulawesi Province, Indonesia: H. Andi Sudirman Sulaiman, S.T		
09.05-09.10	Recitation of Do'a By Dr.Azizul Hakim, Sp.d, M.Pd		
09.10-09.20	Coffee Break		
	Opening Symposium 1	MC	
	Symposium 1	Moderator: Dr.ver.nat. Adryan Fristiohady, S.Farm,M.Sc,Apt	
09.20-09.30	Traditional Dance "4 Etnicities" By Rufaidah		
09.30-10.00	Director of M&T Malaysia: Madam Mariam Mohd Nasir, A.M.K, ETN		
10.00-10.30	Thammasat University Thailand: Rathapon Asasutjarit, Ph.D		
10.30-11.00	Chairman of the BPJS Health Supervisory Board: Prof. dr. Abdul Kadir, Ph.D, Sp.THT-KL(K)., MARS		
11.00-11.30	General Director of Islamic Education, Ministry of Religious Affairs: Prof. Dr. Muh Ali Ramdhani, S.TP., M. T		
11.30-12.00	Discussion		
12.00-13.00	Lunch (Product Presentation by Marks Venus)	MC	
	Symposium 2	MC	
13.00-13.30	UIN Alauddin Makassar, Indonesia: Dr. Hj. Sitti Saleha, S.Sit, SKM, M.Keb	Moderator: Syahrul Basri, M.Kes	
13.30-14.00	UIN Alauddin Makassar, Indonesia: Ns. Ahmad Jamaluddin, M.Kep, Sp.Kep.MB, ETN		
14.00-14.30	UIN Alauddin Makassar, Indonesia: Dr. Andi Susilawaty,S.Si.,M.Kes		
14.30-15.00	UIN Alauddin Makassar, Indonesia: Dr. apt. Kartina Amir Tahir, M.Si		
15.00-15.30	Discussion		
15.30-16.00	Coffee Break & Closing	MC	
Time	2nd Day (28th August 2022)	PIC	ROOM
07.30-08.30	Registration & Opening	Committee	Registration Desk
	Symposium 3	Moderator: Radi Safaruddin, PharmD, M.Pharm, M.Kpkl	Ballroom
08.30-09.00	West Virginia University, USA: Salman Khan, MD, Ph.D		
09.00-09.30	Xoanda, Corrollton, USA: Ryan Plano, MPH., Ph.D		
09.30-10.00	WHO: Mr. Stephen Hinsley, MS, MPH		
10.00-10.30	Discussion		
10.30-10.45	Coffee Break	MC	
10.45-12.00	Poster Presentation	Committee	Hall 7 (Ballroom front hall)
12.00-13.00	Lunch		
13.00-15.00	Oral Presentation	Moderator	Breakout Room
		Yusnaindah Jayadi, S.Gz, M.Kes	Hall 1 (Online)
		Ns. Ardian Adhiwijaya, M.Kep	Hall 2 (Online)
		Muh Hanif, S.Si, M.Si	Hall 3 (Offline)
		Tri Addya Karini, MPH	Hall 4 (Offline)
		Rinawati Ardian Insani Sadereng, MPH	Hall 5 (Offline)
		dr. Andi Faradillah, Sp.GK., M.Kes	Hall 6 (Offline)
15.00-16.00	Coffee Break	MC	
16.00-16.30	Closing Ceremony Announcement: Best poster & oral presentation Closing Speech Officially by Dean of Medical and Health Science Faculty, UIN Alauddin Makassar	MC	Ballroom

List Of Content

Antiinflammatory activities against LPS-induced J774.1 Cell and Total Flavanoid content of *Vitex coffasus*

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Context: The secondary Metabolite compounds found in the vitex sp are terpenes, flavonoids, and lignans. Flavanoids have shown antiinflammatory, anti-oxidative, anti-mutagenic, and anti-carcinogenic properties. Virex coffasus (VCS) research was limited to cancer activities and larvicides compared to other vitex species.
Aim: This study aims to determine the anti-inflammatory activity against LPS-induced J774.1 cells. And the total flavonoid content of *Vitex coffasus*
Method: : Initially, the Vitex coffasus leaves were extracted by using methanol. Next, the extracts were divided into three concentrations 10, 30, and 100 µg/ml, and then evaluated Antiinflammatory by using J774.1 cells function as a macrophage and after being triggered by LPS from *Escherichia coli*, these macrophages could produce Nitric oxide (NO). Inhibition of NO was evaluated using Griess reagent. The qualitative analysis of flavonoids used TLC and visualization by spraying with AlCl3. The determination of total flavonoids is conducted based on the AlCl3 with total flavonoids expressed in QE (Quercetin equivalent) at the maximum wavelength of 431 nm.
Results: The extracts effectively reduced lipopolysaccharide (LPS)-induced NO levels in a 100 µg/ml concentration. The total flavonoid content of VC leaf extract is *1.0318 mg QE / g extract.was* 0,003817 mgQE/g extract
Conclusion: From these results, we can conclude that the VCS leaves possess the antiinflammatory activity and total flavonoid content was 0,3817%

Keywords: Antiinflammatory, Flavanoid, Vitex coffasus

Introduction

Bitti wood (Vitex cofassus) is one of Sulawesi's indigenous plants known as gofasa. Bitti wood (V. cofassus) is utilized as a construction material and as a deodorizing agent by the inhabitants of South Sulawesi. Several investigations have shown that Vitex coffasus has anticancer properties1. Secondary metabolites of flavonoid and alkaloid kinds found in bitti wood (V. Coffasus) have the capacity to inhibit Staphylococcus aureus germs.

According to previous work, VCS has anticancer properties. Several studies indicate that cancer has a relationship or association with other disorders, specifically inflammation2-4, which is one of the body's natural defense systems against outside incursions such as microbes and can manifest as rash, fever, and sore3. Cancer development has been linked to persistent and permanent inflammation. Its emergence might be connected to tumor-related inflammation4, 8-11. Furthermore, infection and inflammation were linked to nearly 25% of all tumor incidents4. Nuraini's (2014)5 research

it was explained that the bark of the beetroot (V. coffasus) contains secondary metabolites, namely flavonoids which are proven to be anticancer and antiinflammation Several medicinal plants containing flavonoids have antioxidant, antibacterial, antiviral, anti-inflammatory, allergy, and anticancer activities[6]. Flavonoid compounds are thought to be very useful in food because, in the form of phenolic compounds, these compounds are potent antioxidants. Many disease conditions are known to be exacerbated by the presence of free radicals such as superoxides and hydroxyl, and flavonoids can virtually eliminate these damaging oxidizing species[7].

Based on the description above, this research was conducted to determine the anti inflammatory and flavonoid levels of *Vitex cofassus* to increase scientific data from medicinal plants.

Methods

Preparing Powder From Vitex coffasus Leaves

The VCS (Vitex cofassus) leaf samples were collected, washed with running water, and dried in a 40-50oC drying cabinet. The sample is then ready for extraction after being ground into a powder using a blender.

The leaves of this plant were crushed into small chunks then macerated with methanol (1:20, v/v) at ambient temperature (28 2 °C) for 3 days with periodic stirring. After filtering the extract, powdered marc was re-macerated in the same organic phase until the extraction was accomplished. The filtrate resulting from maceration is collected and then dried and use a rotary evaporator9.

Anti-inflammatory action against J774.1 cells stimulated by LPS

J774.1 murine macrophage cells were placed into 96-well plates containing 100L per well. These were then cultured for one days in the CO2 incubator. On the following day, the samples was split up into two groups, one of which had LPS and the other of which had not. The plate was withdrawn from the incubation, and thus the old media was substituted with a sample that had earlier been prepared. The plate was incubated for another one day.

On the next day, a griess reagent was created by blending sulphanilamide and N-1-naphthylethylenediamine dichloride. Subsequently, it was dissolved in aqueous solution containing phosphoric acid, and then extra was added to it. Approximately 100 l of Griess reagent was added to fresh 96-well plates.

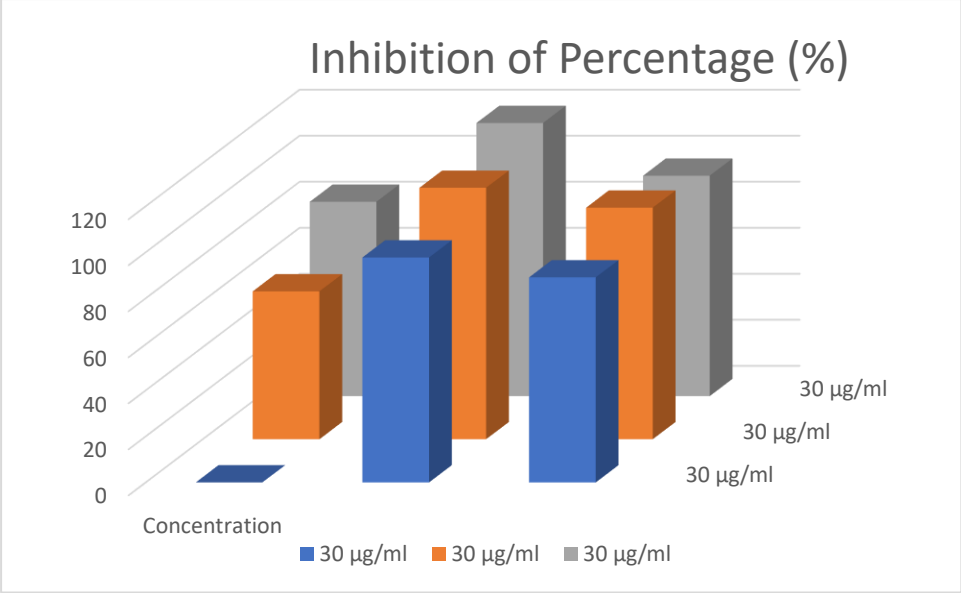
The cell plates were withdrawn from the incubator, placed in a cooler, and 100 l was placed to the Griess agent plate. The absorbents as from sample in the Griess solution plate were formed using a colorimetric method and then the percent of NO inhibition was determined. 200 g of VCS (Vitex coffasus) leaf extract was macerated in 2.75 L of methanol to yield a weight fraction of 10.063%. The outputs of extracting samples of VCS leaves (Vitex coffasus) are presented in the table below.

Table 1. Yield value of *VCS* (*Vitex coffasus*) leaves extract

Sample	Sample weight (g)	Extract result (g)	Yield value (%)
VCS Leaves	200	12,92	6,46

The result of anti-inflammatory of VCS leaves (*Vitex coffasus*) can be seen in the following table 2 :

Concentratiom (µg/ml)	Inhbition of Percentage (%)		
10	44.80	97,73	89,09
30	64,25	109,25	100,61
100	84,40	118,65	95,76



qualitative test was performed to determine the sample's chemical components using the NaOH 10 % reagent, .

Table 3. Qualitative test Results of *VCS* leaf (*Vitex coffasus*) extract flavonoid compound using TLC

Sample	Flavonoid test (NaOH 10 %)	Reference (Theodere, 2019)	Result
*VCS*Leaf	Brown-orange	Orange	+

Note : + (contains flavonoid)

Table 4. Results of Quercetin Absorbance Measurements at 431 nm

Concentration (ppm)	Absorbance
40	0,259
50	0,339
60	0,407
70	0,506
80	0,568

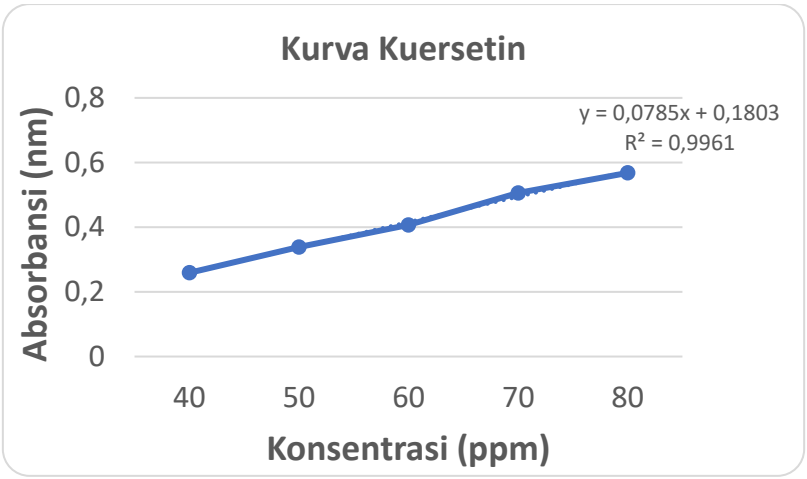


Figure 2. Quercetin Calibration curve at a maximum wavelength of 431 nm

Table 5. Determination of Total Flavonoid Levels of *VCS*(*Vitex coffasus*) leaf extract

Sample	Replication	Absorbance	Initial Flavonoid Content (mg/ml)	Total Flavonoid Content (mgQE/ g eks)	Total Flavonoid Content average mgQE/ g ekss	Flavanoid content (5)
*VCS*Leaves	1	0,473	0,003728	0,003728	0,003817	0,3817
	2	0,489	0,003932	0,003932		
	3	0,478	0,003792	0,003792		

Discussion

According to research published by Faradiba, a particular bioactive components in the vitex coffasus showed anti - cancer properties. The formation of cancer was related to chronic and prolonged inflammation. Its growth may be related with inflammation linked to tumors2-4. Moreover, roughly 25% of all reported cases were connected with inflammation and infection. 4. In this experiment, the initial anti-inflammatory VCS evaluation test was carried out. Throughout this study, the NO inhibiting test on LPS-induced J774.1 cells termed macrophage proved that these cells exhibited the same characteristics as typical macrophage. They can synthesize and discharge lysozyme, and then when they destroy cells, antibody recognizes the target.

These cells were derived from a BALB/c mouse who suffered from unpremeditated cancer. After being stimulated by LPS from Escherichia coli, the J774.1 cells, that functioned like macrophages, may produce NO. Suppression of NO was tested with griess reagent 10-11

Griess reagents originally established in 1879, and then these assays were widely used to assess nitric oxide in biological materials including urine, plasma, and grown cells. The production of griess reagents is set up as follows: In the beginning, it will form short-term diazonium salt, which is made by a reaction combining nitrite and sufanilamide to which acid had earlier been applied, generally phosphoric acid. After adding N-naphthyl-ethylenediamine, the short-term salt converts to non-labile azo agents with a deep purple color. A plate reader is then utilized to quantify the absorbant or optical density of a strong purplish color to establish the NO content. The absorbent computation results are shown in Table 2 and Figure 1. the VCS t had a significant effect on NO inhibition effect of more than 80 % at 100 µgg/ml level. The VCS may be a prime source for some further anti-inflammatory action.

The plants possess anti-inflammatory action due of the herbal ingredient which is flavonoid 12.Based on the faradiba's research which conclude that one of the compound found in the vitex coffasus had anticancer activity . The cancer development were subscribed from the chronic and permanent inflammation. its development could be associated with tumour-linked inflammation[2-4]. Furthermore, it is approximately that 25 % of all tumour incidents were correlated with infection and inflammation[4]. In this research, the preliminary assay was performed for the screening of anti-inflammatory's VCS. In this research, the NO inhibitory

assay on LPS-induced J774.1 cells as macrophage, it was discovered that these cells have similar properties as the regular macrophage. They can produce and liberate lysozyme and when they destroy cells, the object is determined by antibody. These cells were obtained from a BALB/c mouse which suffered from unpremeditated tumour. The J774.1 cells function as a macrophage and after being triggered by LPS from *Escherichia coli*, these macrophages could produce NO. Inhibition of NO was evaluated using griess reagent[10-11]

Griess reagents were introduced in 1879, and these methods were widely used to examine nitric oxide in living specimens such as urine and blood, and also in a cell which is cultured in a medium. The process of griess reagents is established as follows: initially, it will produce short-term diazonium salt which is produced from a reaction between nitrite and sufanilamide that is already added with acid, usually phosphoric acid. This short-therm salt becomes non-labile azo agents which has a strong purple colour, after adding a *N*-naphtyl-ethylenediamine. Afterward, a microplate reader is used to measure the absorbant or optical density of high purple colour for NO concentration. Results of the calculations of absorbant can be seen in table 2 and Fig.1. the VCS t had a significant result on NO inhibitory activity of more than 80 % in 100 µgg/ml concentration. The VCS can be a potent source for continuing to develop as aanti-inflammatory activity .

The plants have aantiinflammatory activity because of the plants's compound which is flavonoid [12]. To assess the total flavonoid content of VCS (Vitex coffasus) leaf extract, a quantitative study of total flavonoid components was performed using UV-Vis spectrophotometry. UV-Vis spectrophotometry was used for flavonoid analysis because to the conjugated aromatic systems of flavonoids, which exhibit high absorption bands in the ultraviolet light spectrum and visible light spectrum. As a standard solution for measuring total flavonoid concentrations, quercetin was used in this work. Because quercetin is a kind of flavonoid, is often used as a standard for measuring quantities of flavonoids, quercetin is a type of flavonol that is abundant in plants; flavonols contain a keto group on C-4 and a hydroZyl group on C-3 or C-5 atoms, and they may form a complex with AlCl3 13

The total flavonoid content of VCS (Vitex coffasus) leaf extract was determined by dissolving 25 mg of VCS leaf extract in 10 ml p.a. methanol. Then, take 1 mL and add 3 ml of methanol pa, 0.2 mL of 10% AlCl3 that might create a complex, causing a change in wavelength more toward the visible (visible) and noted with a solution generating a strongly

yellow hue, then add 0.02 mL of potassium acetate to retain the wavelength in the visible region, then add up to 10 mL of aquadestilleda. The combination is kept at ambient temperature for 30 minutes; it is incubated for 30 minutes to ensure that the reaction works precisely, resulting in a greater brightness (Azizah and Faramayuda 2014). They are then examined at 431 nm wavelength. The outcomes of the experiments are presented in table 6. In a concentration of 100 g/ml, the extracts considerably decreased lipopolysaccharide (LPS)-induced levels of nitric oxide (NO). The total flavonoid concentration of VC leaf extract is 1.0318 mg QE per gram of extract.

Conclusion

We may deduce from these data that VCS leaves contain anti-inflammatory potential while their total flavonoid concentration was 0.3817%.

Ethical approval

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Conflicting Interest

All authors declare no conflict of interest.

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