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HASIL PENILAIAN SEJAWAT SEBIDANG ATAU PEER REVIEW
KARYA ILMIAH : JURNAL ILMIAH

Judul Artikel Ilmiah : ANTI-TUBERCULAR ACTIVITY OF EXTRACT AND COUMPOUNDS OF NONI (MORINDA CITRIFOLIA LINN)

Penulis Artikel Ilmiah : NOVIE E MAULIKU, HENDRO W, SUHARYO HS, **TRI N KRISTINA**

Status Pengusul : Penulis pertama/**penulis anggota**/penulis korespondensi

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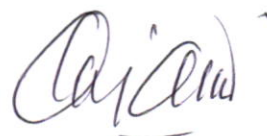
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 (beri ü pada kategori yang tepat) ☐ Jurnal Internasional

I. Hasil Penilaian Peer Review

Komponen Yang Dinilai	Nilai Maksimal Karya Ilmiah	Nilai Yang Diperoleh
	JURNAL INTERNASIONAL BEREPUTASI	
a. Kelengkapan dan Kesesuaian unsur isi artikel (10%)	4	3,80
b. Ruang lingkup dan kedalaman pembahasan (30%)	12	11,70
c. Kecukupan dan kemutahiran data dan metodologi (30%)	12	11,60
d. Kelengkapan unsur dan kualitas penerbit (30%)	12	11,70
Nilai Total = (100%)	40	38,80
Nilai pengusul : (0,4 X 38,80/ 3 = 5,17		5,17
KOMENTAR/ULASAN PEER REVIEW		

Kelengkapan dan Kesesuaian Unsur	: Abstrak lengkap dan informatif. Pendahuluan, bahan dan cara, hasil, pembahasan, simpulan sampai daftar pustaka tertulis lengkap, sesuai kaidah penulisan ilmiah. Pustaka sebagai dasar penulisan mutakhir dan relevan
Ruang Lingkup & Kedalaman Pembahasan	: Lingkup ilmunan sesuai bidang ilmu pengusul bidang Mikrobiologi, dengan pembahasan luas dan mendalam dan dibandingkan dengan penelitian-penelitian terdahulu
Kecukupan Data & Metodologi	: Data lengkap, dengan metode penelitian eksperimental laboratoris, dengan pemeriksaan lab. Mikrobiologi yang terstandar
Kelengkapan Unsur dan Kualitas Penerbit	: Jurnal Internasional terindeks Scopus Q3, SJR 0,22

Semarang,
Reviewer 1



Prof. Dr. drg. Oedijani, MS
 Jabatan fungsional : Guru Besar
 Bidang Ilmu: Kedokteran

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I. Hasil Penilaian *Peer Review*

Komponen Yang Dinilai		Nilai Maksimal Karya Ilmiah	Nilai Yang Diperoleh
		JURNAL INTERNASIONAL BEREPUTASI	
a.	Kelengkapan dan Kesesuaian unsur isi artikel (10%)	4	3,50
b.	Ruang lingkup dan kedalaman pembahasan (30%)	12	10,50
c.	Kecukupan dan kemutahiran data/informasi dan metodologi (30%)	12	10,50
d.	Kelengkapan unsur dan kualitas penerbit (30%)	12	11,00
Nilai Total = (100%)		40	35,50
Nilai pengusul =		(0,4 X 35,50) / 3 =4,73	
KOMENTAR/ULASAN PEER REVIEW			
Kelengkapan dan Kesesuaian Unsur		: Artikel memuat struktur yang lengkap dengan kesesuaian isi yang baik, namun diskusi sangat singkat.	
Ruang Lingkup & Kedalaman Pembahasan		: Penemuan yang penting kurang dibahas dalam discussion/diskusi sangat singkat untuk kemudian mengambil kesimpulan.	
Kecukupan Data & Metodologi		: Merupakan penelitian in vitro yang diuraikan dengan urutan yang baik, termasuk independent variables. Namun dependent variable kurang detail: MIB) values expressed as the lowest concentration inhibition growth of colonies Mycobacterium tuberculosis, while the determination of minimum bactericidal concentration (MBC) was indicated by clear zones around the medium. "Clear zone" terkesan subjective indikator.	
Kelengkapan Unsur dan Kualitas Penerbit		: Journal terindex scopus Q3 dengan SJR:0.17 (2020) menggunakan online submission system. Publication melalui proses peer review dan editor review. Instruction for author lengkap dan jelas.	

Semarang, 2-8-2020

Reviewer 2

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REVIEW ARTICLE(S)

UTILIZATION OF EOSIN DYE AS AN ION PAIRING AGENT FOR DETERMINATION OF PHARMACEUTICALS: A BRIEF REVIEW

HABIBUR RAHMAN

1-9

 [VIEW ABSTRACT](#)  [PDF](#)  [DOWNLOAD PDF](#)  [HTML](#)

10.22159/ijpps.2017v9i12.21220

DEVELOPMENT STATUS IN THE MEADOW OF NANOSTRUCTURE MAGNETIC DRUG DELIVERY SYSTEM AND ITS PROMISING APPLICATIONS

PRIYATAMA V. POWAR

10-17

 [VIEW ABSTRACT](#)  [PDF](#)  [DOWNLOAD PDF](#)  [HTML](#)

10.22159/ijpps.2017v9i12.21544

ETHNOMEDICINAL, PHYTOCHEMICAL, AND PHARMACOLOGICAL ASPECTS OF GENUS ACANTHUS

REKHA BORA, PARTHA PRADIP ADHIKARI, AJIT KUMAR DAS, NANJIAN RAAMAN, GAURI DUTT SHARMA

18-25

 [VIEW ABSTRACT](#)  [PDF](#)  [DOWNLOAD PDF](#)  [HTML](#)

10.22159/ijpps.2017v9i12.22386

ANTIBACTERIAL AND ANTIFUNGAL ACTIVITIES OF OCIMUM GRATISSIMUM L.

SANDEEP PANDEY

26-31

QUANTITATIVE STRUCTURE-ACTIVITY RELATIONSHIP ANALYSIS OF NOVEL PYRAZOLINE DERIVATIVES USING K NEAREST NEIGHBOUR MOLECULAR FIELD ANALYSIS METHOD

DEEPALI M. JAGDALE, RAMAA C. S.

87-91

 [VIEW ABSTRACT](#)

 [PDF](#)

 [DOWNLOAD PDF](#)

 [HTML](#)

10.22159/ijpps.2017v9i12.19401

RATIONAL DESIGNING OF SUSTAINED RELEASE MATRIX FORMULATION OF ETODOLAC EMPLOYING HYPROMELLOSE, CARBOMER, EUDRAGIT AND POVIDONE

NILESH N. MAHAJAN, POOJA WADHAVANE, DEBARSHI KAR MAHAPATRA

92-97

 [VIEW ABSTRACT](#)

 [PDF](#)

 [DOWNLOAD PDF](#)

 [HTML](#)

10.22159/ijpps.2017v9i12.19702

HESPERIDIN HYDROGEL FORMULATION USING PECTIN-CHITOSAN POLYMER COMBINATION
ANDHI FAHRURROJI, DEA THENDRIANI, HAFRIZAL RIZA

98-104

 [VIEW ABSTRACT](#)

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10.22159/ijpps.2017v9i12.19816

ANTI-TUBERCULAR ACTIVITY OF EXTRACT AND COUMPOUNDS OF NONI (MORINDA CITRIFOLIA LINN)

NOVIE E. MAULIKU, HENDRO W., SUHARYO HADI SAPUTRO, TRI N. KRISTINA

105-109

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METHOD DEVELOPMENT AND VALIDATION OF NORETHINDRONE ACE-TATE ASSAY AND ITS RELATED IMPURITIES IN API AND PHARMACEUTICAL FORMULATION WITH ORTOGONAL DETECTOR TECHNUQUES

J. SATISH, P. RADHAKRISHNANAND, K. SURENDRA BABU

110-118

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RATIONAL DESIGNING OF SUSTAINED RELEASE MATRIX FORMULATION OF ETODOLAC EMPLOYING HYPROMELLOSE, CARBOMER, EUDRAGIT L

NILESH N. MAHAJAN*, POOJA WADHAVANE, DEBARSHI KAR

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Received: 06 May 2017 Revised and Accepted: 02 Nov 2017

ABSTRACT

Objective: The existing investigation represents a challenge in formulating etodolac oral controlled-release formulation. The study aims to develop a sustained release matrix formulation using hydrophilic release rate retardant polymers like hydroxypropyl methylcellulose (HPMC) grades K100M, polyvinylpyrrolidone K90 which are non-toxic substances, cost-effective, and easily available.

Methods: Utilizing the wet granulation method, employing talc, anhydrous lactose, and magnesium stearate. Compression and post-compression characteristics were assessed according to the specified protocols. The ability to release the drug in the simulated gastric media and the obtained results were fitted into various drug release mechanism(s). A short-term stability study (for 90 d duration) was also performed.

Results: The densities (bulk and tapped) lie in the range of 0.74-0.75 g/cm³ and 0.84-0.87 g/cm³, respectively. The compression characteristic. The drug content was found in the range 97.61-99.04%. The most proper formulation F6 (101.84%) due to the optimum concentration of carbomer, hypromellose, and povidone. The release followed the diffusion cum erosion mechanism(s) (called anomalous diffusion) and also illustrate the release mechanism of the formulation (Etogesic®-ER 600 mg). The batches did not show any significant changes under accelerated conditions.

Conclusion: The judiciously planned fabrication of the matrix formulations possess the ability to decrease the frequency of dosing from twice-daily along with minimizing the blood level fluctuations, which ultimately leads to enhanced patient compliance.

Keywords: Etodolac, Matrix, Release Mechanism, Sustained, Stability, Tablet

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INTRODUCTION

Etodolac (ETO) is a biopharmaceutics classification system (BCS) Class-II drug used primarily as non-steroidal anti-inflammatory (NSAID) drugs for treating pain related to arthritis. ETO decreases the synthesis of peripheral prostaglandins which are involved in mediating inflammation. It binds to the upper portion of the cyclooxygenase (COX) enzyme active site and prevents its substrate, arachidonic acid, from entering the active site. It is 5-50 times more selective for COX-2 than COX-1, which makes it therapeutically more efficient in managing arthritis-related pain [1-2]. The drug is having a half-life of 6.4 h and exhibit >99% protein binding, primarily to albumin. The mean apparent volume of distribution of the drug is 390 ml/kg, which represents ETO is extensively metabolized in the liver. Renal elimination remained the chief excretion route for both

which may meet the patient's need for a single daily dose, delivering identical bioequivalent formulations, and demonstrate quite comparable results.

The objectives of the present study are (1) to develop a sustained release matrix formulation using hydrophilic release rate retardant polymers such as HPMC K100M, HPMC 934P, eudragit RS100, determining the role of retardant polymers in *in vitro* dissolution studies, (2) studying the release from the matrix formulation, and (3) studying the stability of the formulation under short-term accelerated conditions. The intention to fabricate sustained release matrix formulation will have perspectives of



STRUCTURE CHARACTERIZATION AND EVALUATION POTENTIAL OF ANTIFUNGAL EXTRACTS FROM *Phellinus linteus* AGAINST SKIN INFECTION BY *Staphylococcus epidermidis* ATCC12228 AND *Propionibacterium acnes*

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Received: 08 Apr 2017 Revised and Accepted: 02 Nov 2017

ABSTRACT

Objective: The objective of this study was to investigate the antimicrobial activity of *Phellinus linteus* extract against *Staphylococcus epidermidis* ATCC12228 and *Propionibacterium acnes* DMST 14916.

Methods: Fungal fruiting bodies were extracted with 95% ethanol and ethyl acetate, and then, vapour pressure was determined by the disc diffusion method against *Propionibacterium acnes* DMST 14916 and *Staphylococcus epidermidis* ATCC12228 pathogens. A minimum inhibitory concentration (MIC) and a minimum bactericidal concentration (MBC) were determined. Finally, the chemical profile of crude extract was determined by using thin layer chromatography and GC-MS.

Results: The result demonstrated that the ethanolic extraction had more active fractions with an MIC of 1.0 mg/ml against *Propionibacterium acnes* DMST 14916 and *Staphylococcus epidermidis* ATCC12228 and also showed a minimum bactericidal concentration of 1.0 mg/ml, while ethyl acetate-based solvents failed to develop on TLC according to Ret. Time. GC-MS was applied to investigate the chemical profile of crude extract of *Phellinus linteus*, revealing a compound of octadecadienoic acid.

Conclusion: *Phellinus linteus* fruiting body extracts have great potential as antimicrobial compounds against *Staphylococcus epidermidis* ATCC12228. Thus, they can be used in the treatment of infectious diseases.

Keywords: Antimicrobial activity, *Phellinus linteus*, *Staphylococcus epidermidis*, *Propionibacterium acnes*, DMST 14916

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INTRODUCTION

In recent years, the increasing antimicrobial resistance called superbugs has driven a critical need to develop a novel antimicrobial agent [1]. The multi-drug resistant strains do not only occur through nosocomial infection, but also in the public condition [2] especially bacterial resistance in sexually transmitted infections [3], *Escherichia coli*, *Klebsiella pneumoniae*, *Haemophilus sp.*, vancomycin-resistant *Enterococcus* (VRE), Methicillin-resistant *Staphylococcus aureus* (MRSA), as well as opportunistic pathogens [4]. The main reason for the antibiotic-resistant crisis can be the overuse of broad-spectrum antibiotics. In addition, drugs used in livestock and agriculture badly affect the environmental microorganisms [5]. However, several novel antibiotic agents that are most suitable for use in the hospital environment have been developed to combat both Gram-positive and Gram-negative bacteria, especially screening

MATERIALS AND METHODS

Preparation of mushroom extract

The fruiting bodies of *Phellinus linteus* were collected from a Thai traditional medicine company in Thanyaburi, Pathum Thani. The extraction was conducted by macerating the fruiting bodies in 95% ethanol and ethyl acetate at 1:20 (w/v) for 24 hours. The extract was filtered through Whatman No. 1, and the solvent was evaporated using an evaporator. The residue was dried under vacuum at 40°C. The crude extract was combined and the total weight of the crude extract was calculated. The crude extract was stored at 4°C for further investigation.

Preparation of inoculum

The bacterial strains were prepared by suspending the bacterial strains in sterile distilled water and adjusted to a concentration of 1 × 10⁸ CFU/ml.