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KEMENTERIAN RISET, TEKNOLOGI DAN PENDIDIKAN TINGGI
UNIVERSITAS HASANUDDIN
FAKULTAS KEDOKTERAN GIGI
RUMAH SAKIT GIGI DAN MULUT
KOMITE ETIK PENELITIAN KESEHATAN
Sekretariat : Lantai 2, Gedung Lama RSGM Unhas
JL.Kandea No. 5 Makassar
Contact Person: drg. Muhammad Ikbal, Sp.Pros/Nur Aedah AR TELP. 081342971011/08114919191

REKOMENDASI PERSETUJUAN ETIK

Nomor: 0031/PL.09/KEPK FKG-RSGM UNHAS/2021

Tanggal: 26 April 2021

Dengan ini menyatakan bahwa protokol dan dokumen yang berhubungan dengan protokol berikut ini telah mendapatkan persetujuan etik:

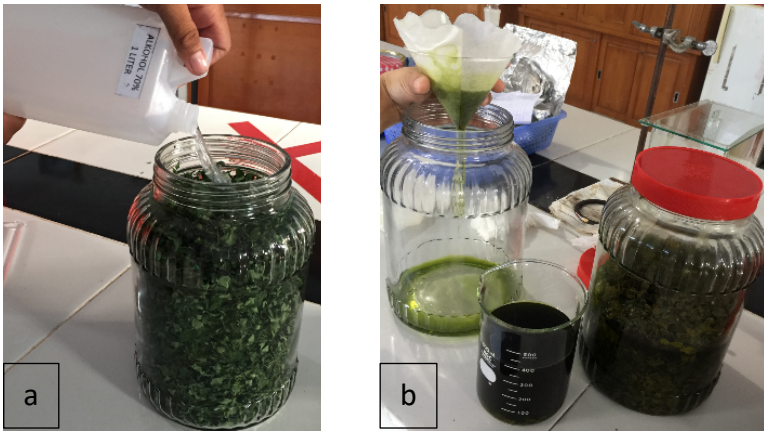
No. Protokol	UH 17120435	No Protokol Sponsor	
Peneliti Utama	drg. Sri Wahyuni	Sponsor	Pribadi
Judul Peneliti	Evaluasi kedalaman penetrasi ekstrak daun kelor (*Moringa oleifera*) pada sepertiga apikal saluran akar: studi in vitro		
No. Versi Protokol	1	Tanggal Versi	26 April 2021
No. Versi Protokol		Tanggal Versi	
Tempat Penelitian	Laboratorium Fitokimia Sekolah Tinggi Ilmu Farmasi Makassar, Laboratorium Metalurgi Teknik Mesin Fakultas Teknik Unhas		
Dokumen Lain			
Jenis Review	☐ Exempted ☒ Expedited ☐ Fullboard	Masa Berlaku 26 April 2021- 26 April 2022	Frekuensi Review Lanjutan
Ketua Komisi Etik Penelitian	Nama: Dr. drg. Marhamah, M.Kes	Tanda Tangan	Tanggal
Sekretaris Komisi Etik Penelitian	Nama: drg. Muhammad Ikbal, Sp.Pros	Tanda Tangan	Tanggal

Kewajiban peneliti utama:

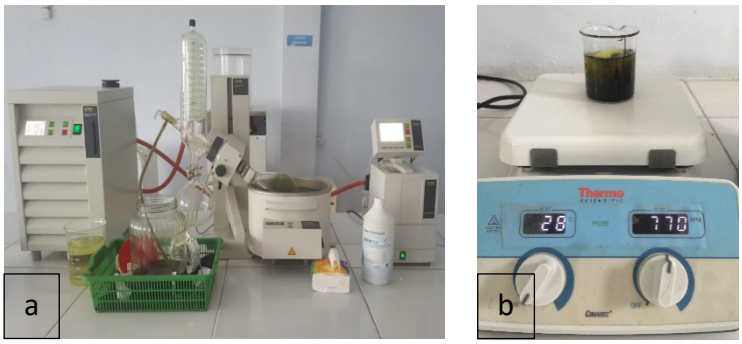
- Menyerahkan Amandemen Protokol untuk persetujuan sebelum diimplementasikan
- Menyerahkan laporan SAE ke Komisi Etik dalam 24 Jam dan dilengkapi dalam 7 hari dan lapor SUSAR dalam 72 jam setelah peneliti utama menerima laporan.
- Menyerahkan laporan kemajuan (*progress report)* setiap 6 bulan untuk penelitian resiko tinggi dan setiap setahun untuk penelitian resiko rendah.
- Menyerahkan laporan akhir setelah penelitian berakhir.
- Melaporkan penyimpangan dari protokol yang disetujui (*protocol deviation/violation)*
- Mematuhi semua aturan yang berlaku.

LAMPIRAN DOKUMENTASI

A. Pembuatan ekstrak daun kelor (*Moringa oleifera*)

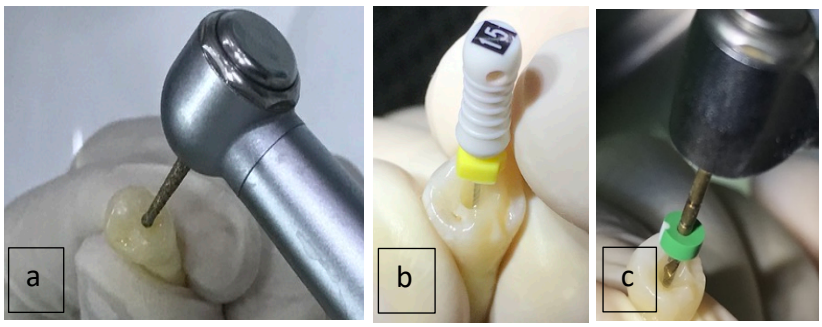


Gambar. a) proses maserasi daun kelor (*Moringa oleifera*), b) hasil maserasi daun kelor (*Moringa oleifera*) disaring menggunakan kertas saring



Gambar. a) larutan ekstrak daun kelor (*Moringa oleifera*) diuapkan menggunakan Rotavapor, b) ekstrak daun kelor (*Moringa oleifera*) disentrifugasi

B. Persiapan Spesimen



Gambar. a) *open access*; b) penentuan PK;
c) preparasi spesimen menggunakan *Protaper Gold*

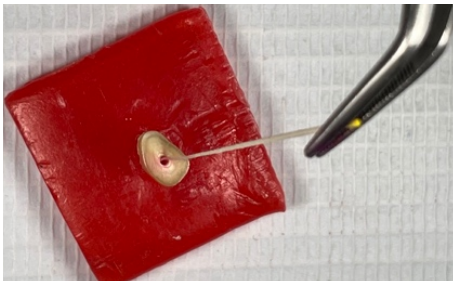
Gambar sampel *Moringa* 3%

Gambar sampel *Moringa* 10%

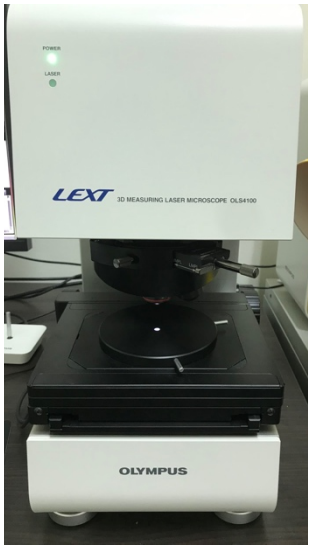
Gambar sampel NaOCl 2.5%

Gambar sampel aquades

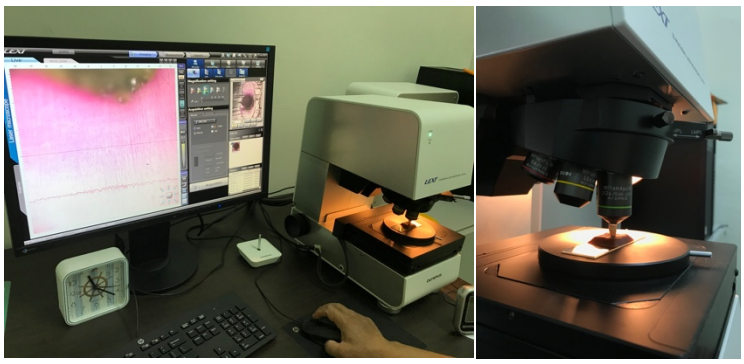
C. Evaluasi Kedalaman Penetrasi



Gambar sampel dikeringkan menggunakan paper point



Gambar CLSM (Lext 3D *measuring laser microscope* OLS 4100 Olympus)



Gambar pengamatan sampel menggunakan CLSM

LAMPIRAN HASIL ANALISIS KEDALAMAN PENETRASI

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Sampel	.138	24	.200*	.958	24	.393

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Output pada *table Test of Normality untuk Shapiro-Wilk* diperoleh nilai *sig* sampel yaitu P = 0.393 Artinya karena nilai P > 0.05 maka dapat di simpulkan bahwa data tersebut distribusi normal.

Test of Homogeneity of Variances

Sampel

Levene Statistic	df1	df2	Sig.
1.032	3	20	.400

Output pada *table Test of Homogeneity of Variances* diperoleh nilai *Levence Statistics* = 1.032 dengan nilai P = 0.400 > 0.05, maka dapat disimpulkan bahwa variansi keempat kelompok data sama (homogen).

UJI ONE WAY ANOVA

ANOVA

Sampel

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	480317295300.000	3	160105765100.000	8.085	.001
Within Groups	396033434200.000	20	19801671710.000		
Total	876350729500.000	23			

Output pada *table ANOVA* diperoleh nilai F hitung = 8.085 dan nilai P = 0.001 yang artinya nilai P < 0.01. Maka dapat disimpulkan bahwa ada perbedaan nilai senyawa terhadap beberapa kelompok larutan.

Multiple Comparisons

Dependent Variable: Sampel

LSD

(I) Kelompok	(J) Kelompok	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
Moringa 3%	Moringa 10%	211421.167*	81243.814	.017	41949.54	380892.79
	Na0Cl 2,5%	30392.667	81243.814	.712	-139078.96	199864.29
	Aquades	348737.833*	81243.814	.000	179266.21	518209.46
Moringa 10%	Moringa 3%	-211421.167*	81243.814	.017	-380892.79	-41949.54
	Na0Cl 2,5%	-181028.500*	81243.814	.038	-350500.13	-11556.87
	Aquades	137316.667	81243.814	.107	-32154.96	306788.29
Na0Cl 2,5%	Moringa 3%	-30392.667	81243.814	.712	-199864.29	139078.96
	Moringa 10%	181028.500*	81243.814	.038	11556.87	350500.13
	Aquades	318345.167*	81243.814	.001	148873.54	487816.79
Aquades	Moringa 3%	-348737.833*	81243.814	.000	-518209.46	-179266.21
	Moringa 10%	-137316.667	81243.814	.107	-306788.29	32154.96
	Na0Cl 2,5%	-318345.167*	81243.814	.001	-487816.79	-148873.54

*. The mean difference is significant at the 0.05 level.

Output pada *multiple comparisons* merupakan uji Anova jika hasil analisis yang diperoleh pada uji anova signifikan. Pada analisis uji lanjut menggunakan uji LSD (*Leat Significant Difference*) untuk mengetahui pasangan mana yang berbeda. Adapun hasil yang diperoleh sebagai berikut: kelompok larutan 1 (*Moringa* 3%) dan larutan 2 (*Moringa* 10%) diperoleh beda rata-rata = 211421.167 dan nilai P yang diperoleh adalah p = 0.017 < 0.05, maka dapat disimpulkan bahwa ada perbedaan rata - rata senyawa pada larutan *Moringa* 3% dengan larutan *Moringa* 10 %.

Adapun hasil yang diperoleh sebagai berikut: kelompok larutan 1 (*Moringa* 3%) dan larutan 3 (NaOCl 2.5%) diperoleh beda rata-rata = 30392.667 dan nilai P yang diperoleh adalah P = 0.712 > 0.05, maka dapat disimpulkan bahwa tiak ada perbedaan rata – rata senyawa pada larutan *Moringa* 3% dengan larutan NaOCl 2,5%.

Adapun hasil yang diperoleh sebagai berikut: kelompok larutan 2 (*Moringa* 10%) dan larutan 3 (NaOCl 2.5%) diperoleh beda rata-rata = 181028.50033 dan nilai P yang diperoleh adalah P = 0.038 < 0.05, maka dapat disimpulkan bahwa ada

perbedaan rata - rata senyawa pada larutan *Moringa* 10% dengan larutan NaOCl 2.5%.

Adapun hasil yang diperoleh sebagai berikut: kelompok larutan 3 (NaOCl 2.5%) dan larutan 4 (Aquades) diperoleh beda rata-rata = 318345.167. Nilai P yang diperoleh adalah P = 0.001 < 0.05, maka dapat disimpulkan bahwa ada perbedaan rata – rata senyawa pada larutan NaOCl 2.5% dengan larutan Aquades.

Adapun hasil yang diperoleh sebagai berikut: kelompok larutan 4 (Aquades) dan larutan 1 (*Moringa* 3%) diperoleh beda rata-rata = 348737.833. Nilai P yang diperoleh adalah P = 0.000 < 0.05, maka dapat disimpulkan bahwa ada perbedaan rata – rata senyawa pada larutan Aquades dengan larutan moringa 3%.

Adapun hasil yang diperoleh sebagai berikut: kelompok larutan 4 (Aquades) dan larutan 2 (*Moringa* 10%) diperoleh beda rata-rata = 137316.667. Nilai P yang diperoleh adalah P = 0.107 > 0.05, maka dapat disimpulkan bahwa tidak ada perbedaan rata – rata senyawa pada larutan aquades dengan larutan daun moringa 10%).

LAMPIRAN

UJI NORMALITAS

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Sampel	24	100.0%	0	0.0%	24	100.0%

Descriptives

			Statistic	Std. Error
Sampel	Mean		585332.58	39844.597
	95% Confidence Interval for Mean	Lower Bound	502907.75	
		Upper Bound	667757.41	
	5% Trimmed Mean		580231.22	
	Median		623610.50	
	Variance		38102205630.000	
	Std. Deviation		195197.863	
	Minimum		293302	
	Maximum		989538	
	Range		696236	
	Interquartile Range		260362	
	Skewness		.133	.472
	Kurtosis		-.656	.918

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Sampel	.138	24	.200*	.958	24	.393

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

UJI ONE WAY ANOVA

Test of Homogeneity of Variances

Sampel

Levene Statistic	df1	df2	Sig.
1.032	3	20	.400

ANOVA

Sampel

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** The mean difference is significant at the 0.05 level.*