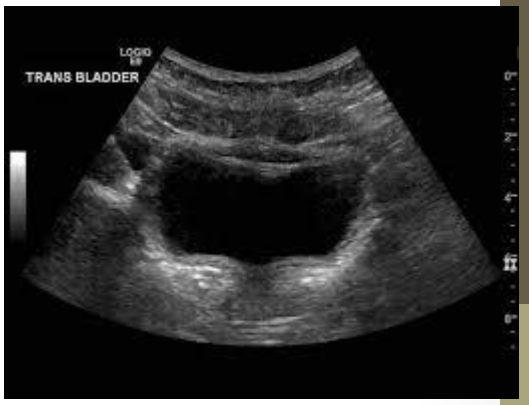
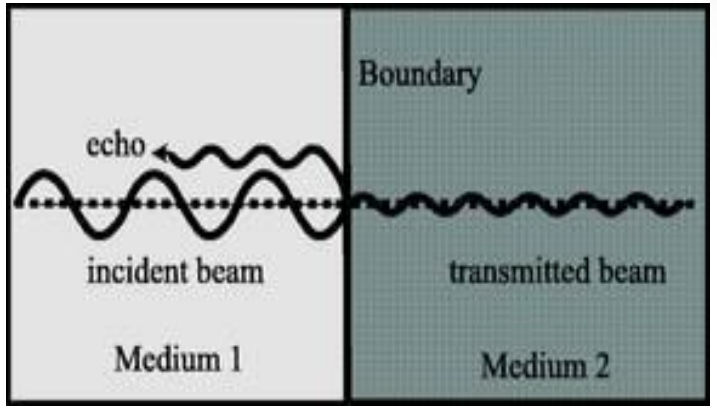
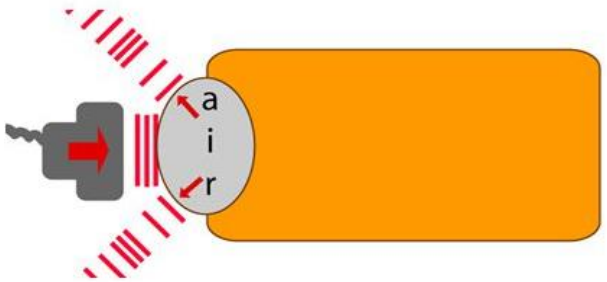
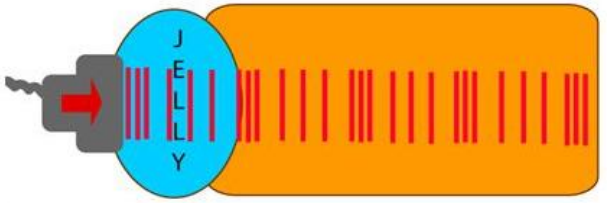

LIVER TRV


Abd Renal
C5-1
42Hz
RT KIDNEY


TRANS BLADDER







ACOUSTIC IMPEDANCE

	Percentage of respondents who have experienced this barrier to ultrasound use
Lack of training	59.9
Cost of maintaining/obtaining/updating machines	50.0
Lack of reliable maintenance to fix machine	47.0
Lack of equipment	45.5
Lack of internet to tele-communicate for support	43.9
No support personnel to answer questions	38.6
Machine breaking	37.1
Lack of gel	32.6
Trained personnel in ultrasound leaving the site	31.8
Lack of electricity or power	31.0
Lack of support of point of care ultrasound from the hospital administration	25.0
Discomfort in image interpretation	25.0
Lack of support of point of care ultrasound from the radiology department	23.5
Discomfort in using ultrasound to make images	15.2

Results

Staphylococus aureus, aerobic spore formers and staphylococcus epidermidis were the most common microorganisms found after culture. Transabdominal probe and ultrasound gel harbours the highest percentage of S. aureus 36.3% and 27.6% respectively. The ultrasound gel and ultrasound couch has the highest percentage of aerobic spore formers 30.8% and 30.0% respectively. Our results show that *S. aureus* was the most commonly isolated organism 33.8% from the ultrasound equipment. Ohara et al., [6] also reported high contamination of ultrasound equipment (39%) with *S. aureus*. This may be due to the fact that *S. aureus* forms part of the skin's natural flora and is found in up to 40% of healthy people. More so, *S. aureus* has been known to be implicated in a range of illness from minor skin infection such as pimples, impetigo, boils (furuncle), cellulitis, scalded skin syndrome, abscesses, etc. to life threatening diseases such as pneumonia, meningitis, pelvic inflammatory disease (PID) etc. [7].

ContemporaryAlternatives for Commercial Ultrasound Gel

"Level of Acceptability of Aloe Vera (*Aloe barbadensis M.)* and Saluyot (*Corchorus olitorius L.*) Extract as An Alternative for Commercial Ultrasound Gel."

Dayao, Leandro Jr. O.
Dumalaga, Jean Claudine M.
Matalam, Ossama Zainudin L.

Objectives:

- 1. This study aims to produce an ultrasound gel that have organic composition that will provide the same image quality as the commercial ultrasound gel;
- 2. To determine the level of image acceptability of the Aloe vera - Saluyot gel in visualizing the internal organs such as:
- a. Liver
- b. Thyroid

3. Compare the level of image acceptability of the commercial gel with the Aloe vera-saluyot gel in visualizing the internal organs in terms of the following:

- A. Liver
- B. Thyroid

Significance of the Study

- Produce a natural product for an ultrasound gel to lessen the adverse reactions and complications that are present in commercial ultrasound gel.

- This study also aims to benefit the rural communities by producing a gel composed of organic materials that is readily available in the field and to lessen the cost for ultrasound gel.

Collection of Saluyot leaves (5

a leaves

g

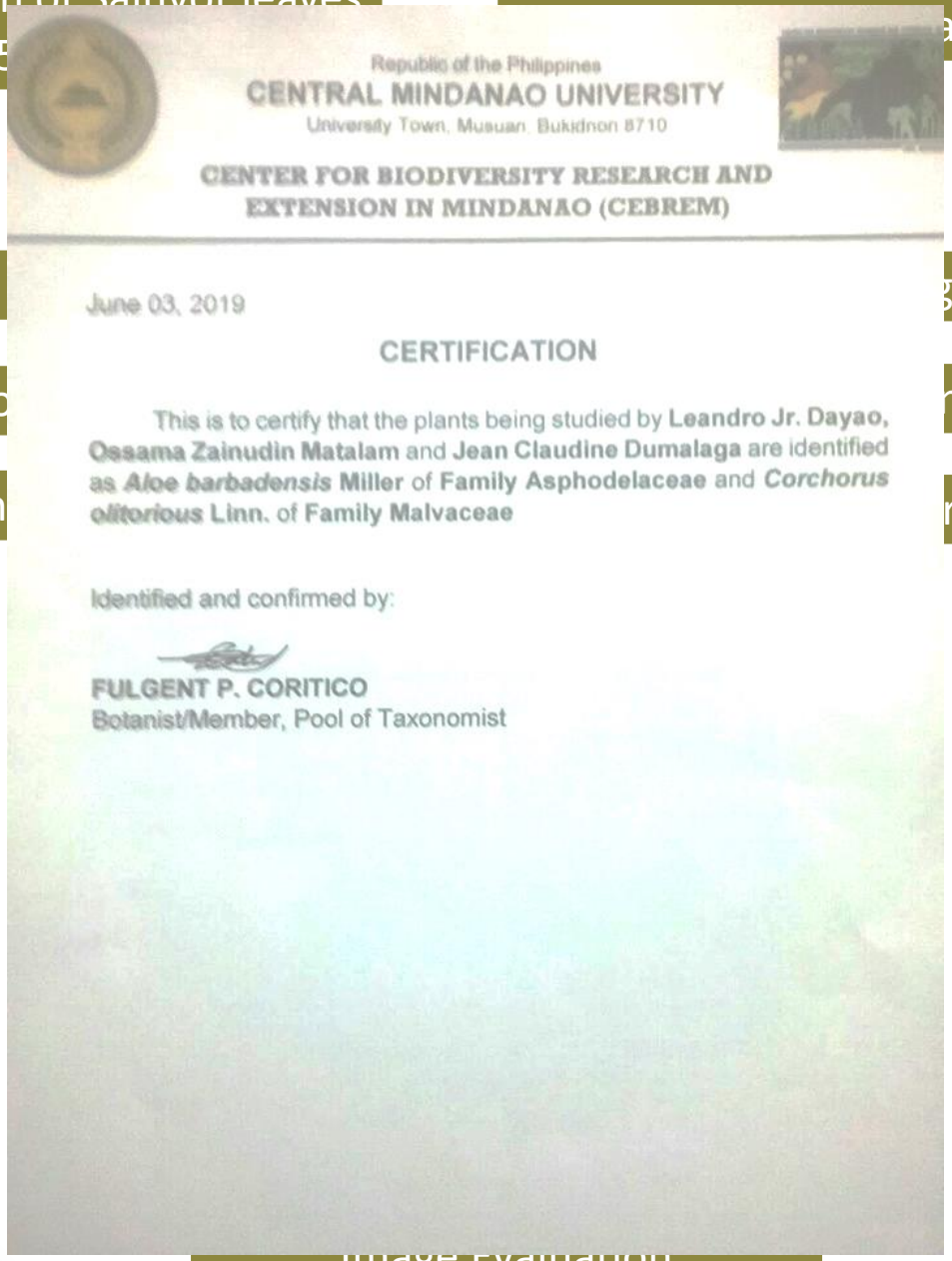
Extractio

nd spikes

Filtration

ra Mucilage

Image Evaluation



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June 03, 2019

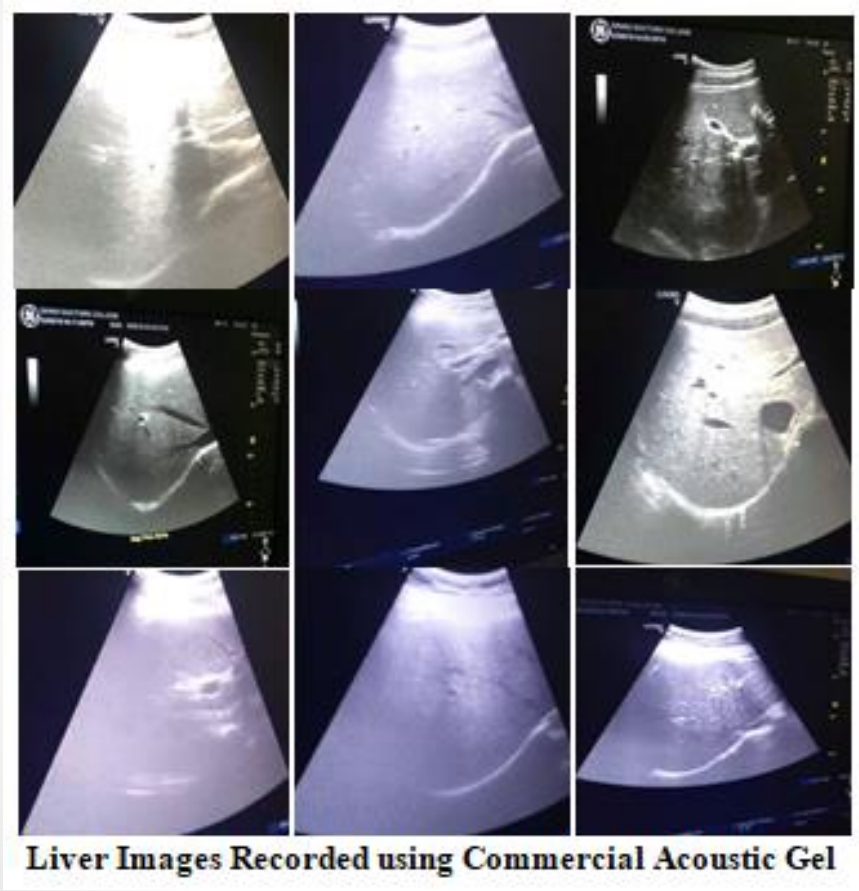
CERTIFICATION

This is to certify that the plants being studied by **Leandro Jr. Dayao, Ossama Zainudin Matalam** and **Jean Claudine Dumalaga** are identified as ***Aloe barbadensis*** **Miller** of **Family Asphodelaceae** and ***Corchorus olitorious*** **Linn.** of **Family Malvaceae**

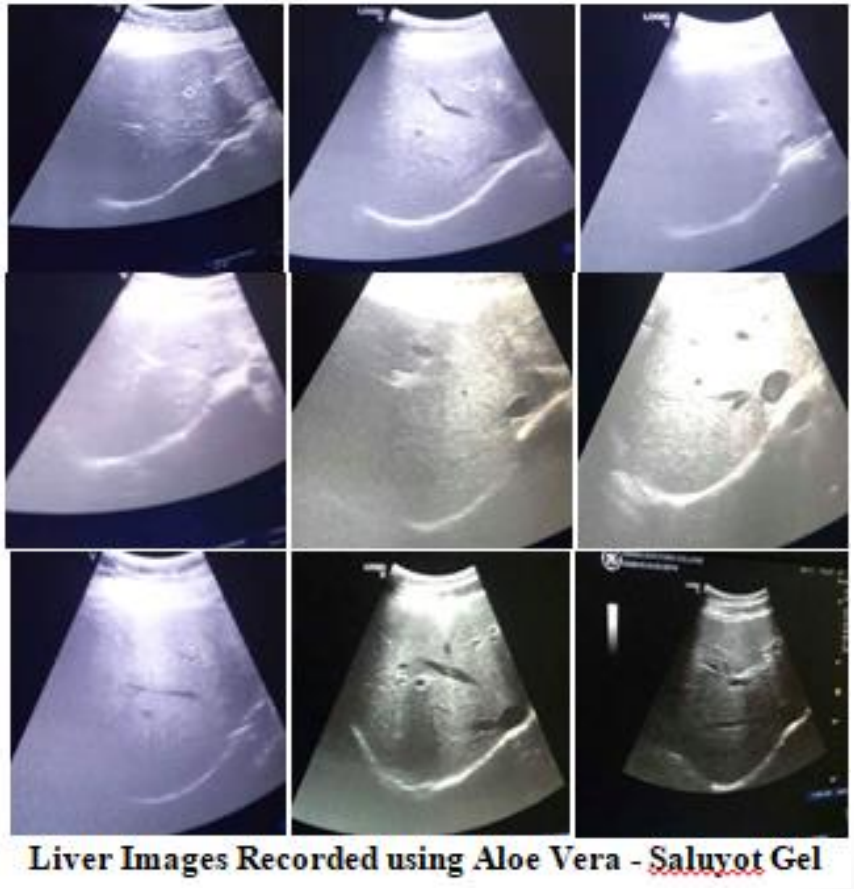
Identified and confirmed by:

FULGENT P. CORITICO
Botanist/Member, Pool of Taxonomist

Results: (Liver Scan) Commercial Gel Vs.Aloe Vera–Saluyot Gel



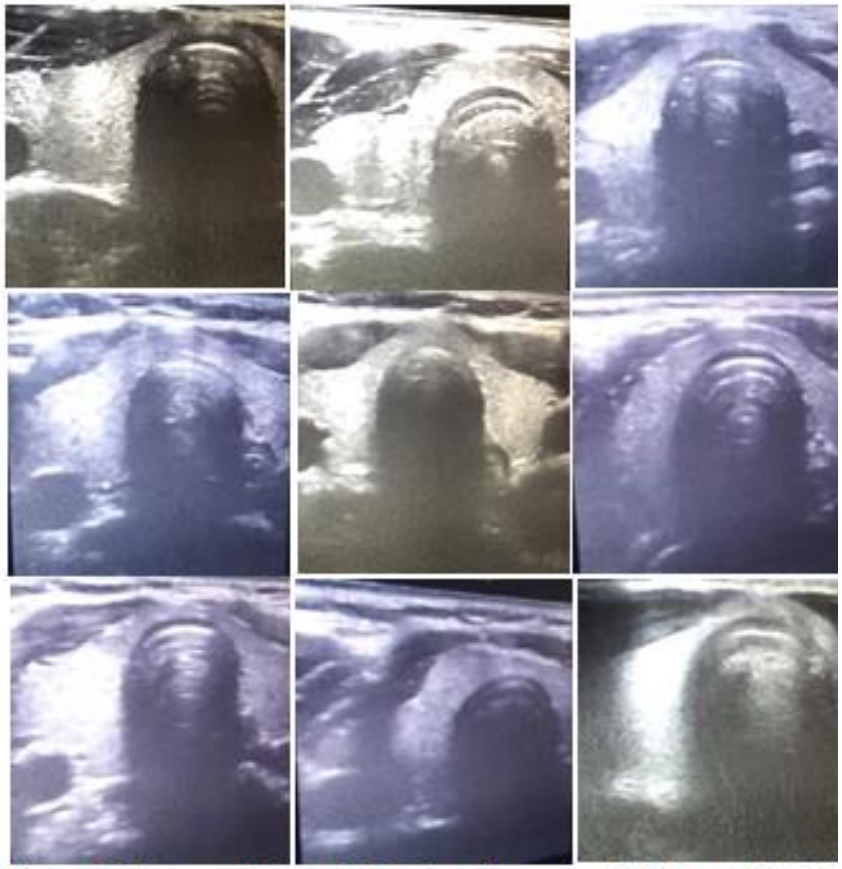
Liver Images Recorded using Commercial Acoustic Gel



Liver Images Recorded using Aloe Vera - Saluyot Gel

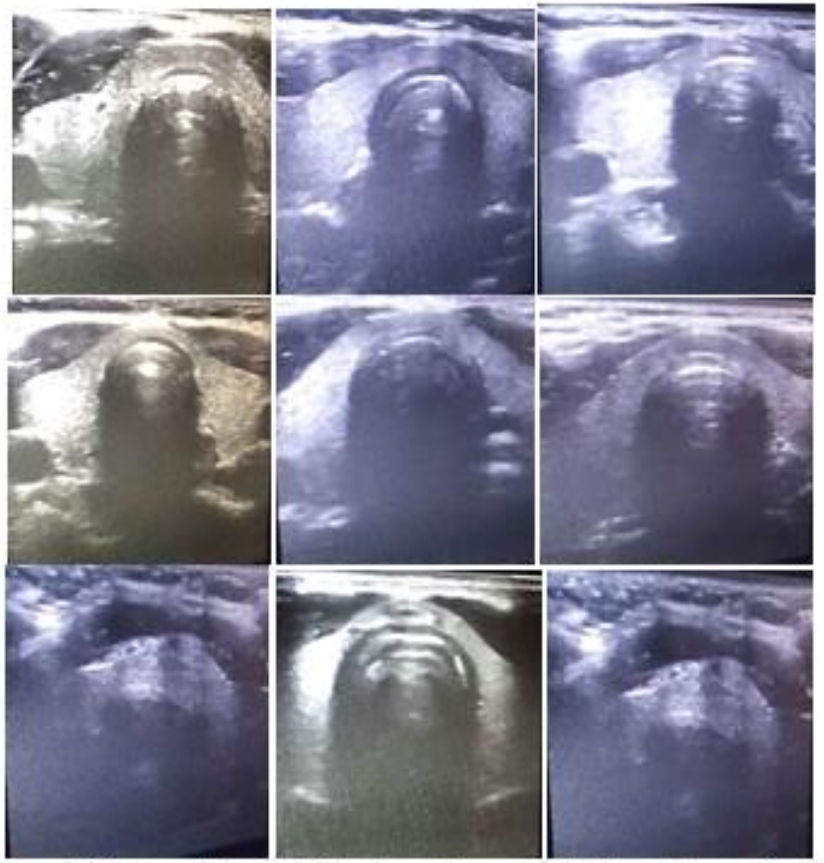
Results: (Thyroid Scan)

Commercial Ultrasound Gel



Thyroid Images Recorded using Commercial Acoustic Gel

Aloe vera-Saluyot Gel



Thyroid Images Recorded using Aloe vera-Saluyot Acoustic Gel

GEL TYPE	MEAN	DESCRIPTION	INTERPRETATION
Saluyot- Aloe Vera			
• Liver Scan	1.5	Moderate	The images are moderately acceptable
• Thyroid Scan	2.1	Moderate	The images are moderately acceptable
Commercial Gel			
• Liver Scan	1.6	Moderate	The images are moderately acceptable
• Thyroid Scan	2.1	Moderate	The images are moderately acceptable

Table 1. Level of Image Acceptability between Saluyot-Aloe Vera Gel and Commercial Gel

Indicator		z	Sig.	Decision	Interpretation
Level of Image Acceptability	Liver	0.704	0.482	Not significant	Accept
	Thyroid	0.685	0.546	Not significant	Accept

Table 2. Significant Difference in the Level of Image Acceptability between the Aloe vera-saluyot gel and the Commercial Ultrasound Gel

Conclusion

- The images when using the saluyot- aloe vera gel and the commercial ultrasound gel were moderately acceptable.

- There was no significant difference in the level of acceptability between the saluyot– aloe vera gel and commercial ultrasound gel in visualizing the images.

Recommendations:

1. To search for another organic plant that will help to lengthen the expiry of the aloe vera-saluyot gel formulation.
2. It is highly recommended to be an alternative for the commercial ultrasound gel, however, due to less propagation of aloe vera, it would be difficult to formulate the aloe vera –saluyot gel easily.
3. To determine the exact amount of application per scan of aloe-vera-saluyot gel depending to what specific organ examined.
4. To use an extensive higher freezing point in lengthening the expiration of the formulated gel.

THANK YOU FOR LISTENING