

# MMHS

## Society of Medical, Medicine and Health Sciences

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Bali, Indonesia

# 2020



# CONFERENCE PROCEEDINGS

  

## BOOK OF ABSTRACTS MMHS-2020

International Conference on  
“Medical, Medicine & Health Sciences”  
(MMHS-2020), Bali, Indonesia



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# **Book of Abstracts Proceeding**

International Conference on  
“Medical, Medicine & Health Sciences”  
(MMHS-2020)  
**Bali, Indonesia**

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**International Conference on  
“Medical, Medicine & Health Sciences”  
Bali, Indonesia  
Venue: Hotel Santika Seminyak Bali, Indonesia**

**ORGANIZING COMMITTEE**

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## CONFERENCE CHAIR MESSAGE

**Dr. Malika Ait Nasser**

International Conference on “Medical, Medicine & Health Sciences” serves as platform that aims to help the scholarly community across nations to explore the critical role of multidisciplinary innovations for sustainability and growth of human societies. This conference provides opportunity to the academicians, practitioners, scientists, and scholars from across various disciplines to discuss avenues for interdisciplinary innovations and identify effective ways to address the challenges faced by our societies globally. The research ideas and studies that we received for this conference are very promising, unique, and impactful. I believe these studies have the potential to address key challenges in various sub-domains of social sciences and applied sciences.

I am really thankful to our honorable scientific and review committee for spending much of their time in reviewing the papers for this event. I am also thankful to all the participants for being here with us to create an environment of knowledge sharing and learning. We the scholars of this world belong to the elite educated class of this society and we owe a lot to return back to this society. Let's break all the discriminating barriers and get free from all minor affiliations. Let's contribute even a little or single step for betterment of society and welfare of humanity to bring prosperity, peace and harmony in this world. Stay blessed.

Thank you.

**Dr. Malika Ait Nasser**

Conference Chair

Email: [chair@academicfora.com](mailto:chair@academicfora.com)

MMHS-2020

## Conference Schedule

***Feb 21-22, 2020***

**Hotel Santika Seminyak Bali, Indonesia**

**Time: Registration & Kit Distribution (09:00– 09:10 am)**

**Venue: Room 1**

09:10 am – 09: 20 am	Introduction of Participants
09: 20 am – 09: 30 am	Inauguration and Opening address
09: 30 am – 09:40 am	Networking Session

**Tea/Coffee Break (09:40 am - 10:00 am)**





**DAY 01 (Feb 21, 2020)**

**1<sup>st</sup> Presentation Session (10:00 am – 12:30 pm)**

***Track A: Medical, Medicine and Health Sciences***

<b>Presenter Name</b>	<b>Manuscript Title</b>	<b>Paper ID</b>
Rudiyo Rudiyo	Combination Of Whole Brain Radiotherapy With Different Fraction And Concomitant Capecitabine In Brain Metastasis Breast Cancer	BAL-3220-102M
San Winata Badiri	The Effect of Putat Air Kernel's (Barringtonia racemosa) on the Quality of Sperm in Rat (Rattus norvegicus) that had been exposed to Cigarette Smoke	BAL-3220-101M
M. Ifani Syarkawi Rizal	Comparison of Platelet Rich Plasma Administration with Platelet Low Plasma for Healing Incision Wounds in Cruris of Rattus norvegicus Rats Viewed from Histology of Collagen Tissues	BAL-3220-104M

***Track B: Engineering, Technology, Computer and Applied Sciences***

<b>Presenter Name</b>	<b>Manuscript Title</b>	<b>Paper ID</b>
Oegik Soegihardjo	Performance of Mechanical Energy Harvesting Unit for Generating Electricity for Portal Gate System	BAL-3220-107E

**Lunch Time & Ending Note (12:30 pm - 01:30 pm)**

## ***Participants Registered as Listener\Observer***

The following Scholars/ practitioners who don't have any paper presentation, however they will be attending the conference as delegates & observers.

<i><b>Sr. No</b></i>	<i><b>Name</b></i>	<i><b>Affiliation Details</b></i>	<i><b>Country</b></i>	<i><b>Submission ID</b></i>
<b>1.</b>	Cristina Periverzof	France, 83190 Ollioules, 212 chemin des delphiniums.	France	BAL-3220-103MA

**DAY 02 Saturday (Feb 22, 2020)**

## **City Tour and Shopping Day**

All respective guests are free to conduct their own sightseeing and tour. The second day of the event is reserved for this memorable purpose



**TRCAK A: MEDICAL, MEDICINE & HEALTH  
SCIENCES**

# Combination Of Whole Brain Radiotherapy With Different Fraction And Concomitant Capecitabine In Brain Metastasis Breast Cancer

Rudiyo Rudiyo<sup>1\*</sup>, Iskandar Japardi<sup>2</sup>, Aznan Lelo<sup>3</sup>, Susworo<sup>4</sup>

**Abstract** Introduction: Breast cancer is the second most frequent cancer worldwide. The main therapeutic modality for breast cancer with brain metastasis is radiation. Whole Brain Radiotherapy (WBRT) is a regional treatment that provides moderate doses of radiotherapy to all brain tissue. Capecitabine was found to be effective for the treatment of breast cancer with metastasis. Objective: This study aims to determine the effectiveness of WBRT on the response of breast cancer brain metastatic lesions combined with capecitabine administration. Materials and methods: This study uses a prospective, randomized-blind cohort analytic study approach. Subjects were randomized into two groups by giving different fraction of WBRT and capecitabine. Subjects were evaluated 4 weeks post radiation. Data on differences in patient responses in the two treatment groups were analyzed. Results: A total of 22 breast cancer patients with brain metastasis participated in this study. Group I (WBRT 10x3Gy + capecitabine 850-1000 mg / m<sup>2</sup>) obtained results of 5 (45.5%) out of 11 are responding to therapy. Whereas in group II (WBRT 20x2Gy + capecitabine 850-1000 mg / m<sup>2</sup>) found 11 (100%) out of 11 patients responded to therapy. The results of statistical analysis showed that there were significant differences between the two groups with a value of P = 0.012. Conclusions: Giving capecitabine and WBRT with 20x2 Gy gives a better response both clinically and statistically

**Keywords:** WBRT, Capecitabine, Breast cancer. Brain metastases

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<sup>2</sup>Department of Neurosurgery of Siloam General Hospital, <sup>3</sup>Department of Pharmacology and Therapy of University of North Sumatra, <sup>4</sup>Department of Radiotherapy of Cipto Mangunkusumo National Central General Hospital, Indonesia

# The Effect of Putat Air Kernel's (*Barringtonia racemosa*) on the Quality of Sperm in Rat (*Rattus norvergicus*) that had been exposed to Cigarette Smoke

San Winata Badiri<sup>1\*</sup>, Dahril<sup>2</sup>, Dasrul<sup>3</sup>

**Abstract** Introduction Cigarette smoke causes oxidative stress which result in reduces sperm concentration, motility, viability, and morphology. Putat air (*Barringtonia racemosa*) is a medicine plant belonging to the Lecythidaceae family. Extract of *Barringtonia Racemosa* kernel's contained anti-oxidant terpenoids, flavonoids, saponins, tannins and polyphenols. The aim of this study was to determine the effect of extract *Barringtonia Racemosa* kernel's on sperm quality of cigarette smoke exposed rats. Methodology This study used a post test only control group design among 30 male Wistar rats subject. The subject was randomly divided into 5 groups, K1: negative control, K2: cigarettes smoke exposed as positive control, P1: cigarettes smoke exposed and given 100 mg/gBW B. *Racemosa* extract peroral, P2: cigarettes smoke exposed and given 150 mg/gBW B. *Racemosa* extract peroral, and P3: cigarettes smoke exposed and given 200 mg/gBW B. *Racemosa* extract peroral. Analysis was done on day 30 using one-way ANOVA and post-hoc LSD for sperm concentration, motility, viability, and morphology. Result The highest sperm concentration was found in P2 (P1 40,60 million/mL, P2 59,80 million/mL, P3 50,80 million/mL; the highest normal sperm motility was found in P2 (P1 42,00 %, P2 61,80 %, P3 50,60 %); the highest normal sperm viability was found in P2 (P1 42,60 %, P2 61,00 %, P3 53,20 %); the highest normal sperm morphology was found in P1 (P1 41,20 %, P2 28,60, P3 37,60) Discussion & Conclusion Extract of *Barringtonia Racemosa* kernel's can improve sperm concentration, motility, viability, and morphology of cigarette smoke expose rats.

**Keywords:** Sperm Quality, *Barringtonia Racemosa*, Antioxidant Activities

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# Comparison of Platelet Rich Plasma Administration with Platelet Low Plasma for Healing Incision Wounds in Cruris of *Rattus norvegicus* Rats Viewed from Histology of Collagen Tissues

M. Ifani Syarkawi Rizal\*

**Abstract** Background;Wound healing is a complicated, multi-step process that can be divided into three major phases: inflammation, proliferation, and scar formation / remodeling. The compartmentalization of this process into discrete stages Gives the illusion of simplicity, but in reality it is much more complicated. For efficient healing to occur, complex interactions between multiple cell types, soluble factors and extracellular matrix components are required to re-build the tissue, PRP is produced from the blood by centrifugation, the which concentrates the platelets along with Several bioactive factors that have the ability to promote various aspects of tissue regeneration and protection The rationale for use and therapeutic potential of a high concentration of platelets is based on their capacity to supply and release supraphysiologic amounts of essential growth factors and cytokines from their alpha granules to provide a regenerative stimulus augments that promotes healing and repair in tissues. Unlike PRP, PPP does not have many platelets but PPP has its own unique healing properties. Methodology;This study was an experimental study using the design of the posttest only control group design in an experimental laboratory. The research subjects were divided into 3 groups: 10 rats with incision wound at the cruris and given injection of platelet-rich plasma, then 10 white rats with incision wound at the cruris and were given injection of platelet-poor plasma and 10 rats with incision wound at the cruris for control. The wound area was measured over 7 days, the wound was Harvested and histological analysis was performed Including finding counting of collagen, and will be Analyzed by ANOVA test. Result;The results Showed that the amount of collagen between platelet-rich plasma and platelet poor plasma with p value Differ Significantly 0.000 ( $P < 0.05$ ). Conclusion;In this study there was difference in the amount of collagen between platelet-rich plasma and platelet poor plasma injection for incision wound at the cruris of *Rattus norvegicus*. The amount of collagen is much higher with the platelet-rich plasma injection.

**Keywords:** Platelet-Rich Plasma, Platelet Poor Plasma, Wound Incision

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Medical Faculty Syiah Kuala University Banda Aceh, Indonesia



**TRACK B: ENGINEERING, TECHNOLOGY,  
COMPUTER AND APPLIED SCIENCES**





# Performance of Mechanical Energy Harvesting Unit for Generating Electricity for Portal Gate System

Joni Dewanto<sup>1</sup>, Oegik Soegihardjo<sup>2\*</sup>

**Abstract** The portal gate systems for parking area need electricity for opening/closing the portal (barrier crossbar) and printing the parking ticket. The mechanical energy harvesting unit presented on this paper is designed for supplying electrical energy needed by the portal gate system for its operation. The mechanical energy harvesting unit converted linear movement of the slider into rotating movement of the fly wheel using rack and pinion. The energy stored in the fly wheel is used to turn a small electric generator attached to the energy harvesting unit that provided electricity for the portal gate system. This energy harvesting unit is designed as a breakthrough to produce electrical energy by utilizing the weight of the vehicle that enters the parking space. The linear movement of the slider is gained from the weight of the vehicle that passed on the mechanical energy harvesting unit. This system is appropriate for a stand alone portal gate systems. Three categories of passanger cars (small, medium and large) each with mass of 1300 kg, 1700 kg and 2000 kg respectively were used in the experiment. Considering the mechanical efficiency of the harvesting unit by 60%, three vehicles used were able to produce a maximum rotation of the electric generator of the harvesting units for 2585 rpm, 2964 rpm and 3210 rpm, respectively. Testing of the harvesting unit generator with a continuous rotation with an electrical load taken from LED lights with voltage of 24 Volt, 18 Volt and 12 Volt produces power of 19 Volt x 3.6 mAmp (4000 rpm), 17 Volt x 4.3 mAmp (3500 rpm) and 12 Volt x 11 mAmp (2400 rpm) respectively. Initial testing of the mechanical energy harvesting unit shows that this equipment is capable of producing the required electrical energy.

**Keywords:** Mechanical Energy Harvesting Unit (MEHU), Fly Wheel, Generator Performance, Electrical Load

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