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CONFERENCE PROCEEDINGS

17th International Conference on Healthcare & Life-Science Research (ICHLSR), 22-23 July 2017, Bangkok, Thailand

22-23 July 2017

Conference Venue

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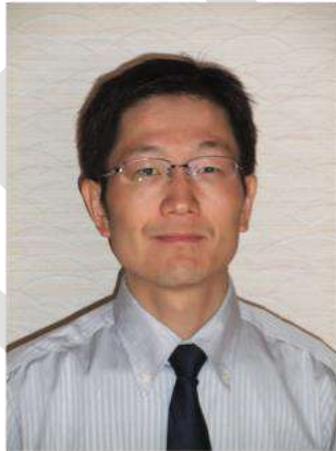
KEYNOTE SPEAKER

Ah. Yusuf
Lecturer and Researcher on Mental Health Nursing, Faculty of Nursing Universitas Airlangga, Surabaya, Indonesia

Assoc. Prof. Dr. Narongsak Noosorn

Associate Dean for academic affair, Faculty of Public Health, Naresuan University, Phitsanulok, Thailand

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PLENARY SPEAKER

Hajime Hirao

Department of Biology and Chemistry, City University of Hong Kong, Hong Kong, China

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Godwin T. Jombo
GICICHLSR1706051

Distribution of Hepatitis B virus (HBV) markers among Hepatitis B infected patients attending Benue State University Teaching Hospital, Makurdi Nigeria.

Godwin T. Jombo
(MBBS, FMCPath) Professor of Clinical Microbiology and Parasitology. College of Health Sciences, Benue State University Makurdi Nigeria

Ahmed Usman
(MBBS) Lecturer in Clinical Microbiology and Parasitology. College of Health Sciences, Benue State University Makurdi Nigeria

Emmanuel M. Mbaawuaga
(MSc, PhD) Senior Lecturer in Microbiology, Faculty of Science, Benue State University, Makurdi Nigeria

Abstract
Background: Diagnosis of HBV infection in most health institutions in Benue state is based on serological screening for the presence of HBsAg alone in the blood of the patients.
Aim: This study was set up to ascertain the distribution of HBV markers among patients attending BSUTH Makurdi.
Methods: The study was laboratory based and retrospective in nature involving compilation of laboratory data on HBV markers among patients from 25 June 2015 to 24 June 2016 at Medical Microbiology laboratory of BSUTH. Data obtained was analysed using SPSS 20 version and P values ≤ 0.05 were considered significant.
Results: Six hundred and eighty eight patients were tested for HBV markers consisting of 375 (54.8%) males and 313 (45.5%) females. The age range was 3 to 75 years; mean age was 40; Median age 43 and mode 41. Serological tests among 223 (32.4%) showed that HBsAg, anti-HBs, HBeAg, anti-HBe, and anti-HBc were all negative implying no infection; and in 190 (27.7%) patients, the following result was obtained: HBsAg-negative, anti-HBs-positive, HBeAg-negative, anti-HBe-negative, and anti-HBc-positive also implying no ongoing infection. In 32 (4.6%) of the patients: HBsAg was negative, anti-HBs-positive, HBeAg-negative, anti-HBe-negative, and anti-HBc-negative which also means no active infection; while in 162 (23.5%) of the patients, HBsAg was tested positive, anti-HBs-negative, HBeAg-positive, anti-HBe-positive, and anti-HBc-positive signifying acute HBV infection. Also in 67 (9.7%) of the patients, the following result was obtained: HBsAg-positive, anti-HBs-negative, HBeAg-negative, anti-HBe-positive, and anti-HBc-positive signfying ongoing chronic HBV infection; and in 14 (2.1%) patients only anti-HBc was positive and the rest negative implying inconclusive result. Among the 67 persons with chronic HBV infection, 61.2% (41) and 38.8% (26) were males and females respectively

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	(P&it); and among the 162 patients with acute HBV infection, 57.4% (93) and 42.6% (69) were males and females respectively (P>0.05). And among the indeterminate group of 14 persons 35.7% (5) and 64.3% (9) were of male and female gender respectively (P<). Conclusion: HBV infection is still endemic in Benue state and indeed Nigeria, seological tests should not only stop at HBsAg screening alone but markers should be equally detected for a more comprehensive clinico-laboratory definition of cases. Key Words: Hepatitis B, Markers, Viral
Abdullah Adil Ansari **GICICHLSR1706053**	**Antimicrobial potential of Azardirachta indica (Neem) and Syzygium cumini (Jamun) seeds against microbial pathogens from Diabetic foot** **AA Ansari,** **Department of Biology, University of Guyana, Georgetown, Guyana, South America** **Abstract** **Objectives:** The main aim of study was to identify the phytochemicals and chemical constituents in the crude extracts by gas chromatography-mass spectrometry (GC-MS) and to identify the possible antimicrobial activities of Azadirachta indica and Syzygium cumini seeds against diabetic foot pathogens in Guyana. **Design & Methods:** Microorganisms were isolated from the pus sample of diabetic foot ulcer at the Diabetic foot clinic. Minimum inhibitory concentration of the plant extract was tested by the two-fold serial dilution method. Azadirachta indica and Syzygium cumini crude extracts were analysed using a Thermo Scientific TRACE GC ULTRA. Tests were also done to identify the phytochemicals. **Results:** The total chemical constituents that were present in ethyl acetate crude extract were: methyl 14-methylpentadecanoate; 2-Furancarboxaldehyde, 5-(hydroxymethyl); 8,11-Octadecanoic acid methyl ester; Hexadecanoic acid, methyl ester; 9-Octadecenoic acid (Z), methyl ester; Heptadecanoic acid, 16-methyl-, methyl ester. A total of 53 pathogens were isolated with the most common aerobic isolates were Pseudomonas sp, 11 (20.8%), followed by Escherichia coli, 9 (17.0 %), Klebsiella sp and Proteus sp each, 7 (13.2%), and Acinetobacter sp, 4 (7.6%). Staphylococcus aureus isolated was 7 (13.2%). Syzygium cumini showed a mean zones of 2 and 31mm and MIC of 25–100 mg/ml. Azardirachta indica obtained a mean zones of 5 and 25 mm and an MIC of 12.5–100 mg/ml. **Conclusions:** Azadirachta indica and Syzygium cumini showed a good antimicrobial property against diabetic foot pathogens.
Yuvraj Singh Dangi **GICICHLSR1706054**	**Double liposomes mediated dual drug targeting for treatment of Helicobacter pylori infections** **Yuvraj Singh Dangi** **Kamta Prasad Namdeo** **Sagar Institute of Pharmaceutical Sciences, Sagar (M.P.)** **Abstract**

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In the present study the potential of phosphatidylethanolamine (PE) lipid anchored double liposomes (DL) to incorporate two drugs in a single system is exploited as a tool to augment the H. pylori eradication rate. Preparation of DL involves two steps, first formation of primary (inner) liposomes by thin film hydration method containing one drug, then addition of suspension of inner liposomes on thin film of lipid containing the other drug. The success of formation of DL was characterized by optical and transmission electron microscopy. Quantitation of DL-bacterial interaction was evaluated in terms of percent growth inhibition (%GI) on reference strain of H. pylori ATCC 26695. To confirm specific binding efficacy of DL to H. pylori PE surface receptor we performed an agglutination assay. Agglutination in DL treated H. pylori suspension suggested selectivity of DL towards the PE surface receptor of H. pylori. Monotherapy is generally not recommended for treatment of a H. pylori infection due to the danger of development of resistance and unacceptably low eradication rates. Therefore combination therapy with amoxicillin trihydrate (AMOX) as anti- H. pylori agent and ranitidine bismuth citrate (RBC) as antisecretory agent were selected for the study with an expectation that this dual-drug delivery approach will exert acceptable anti- H. pylori activity.

Keywords: Liposome, Drug targeting, H. Pylori

Mohamed Fathallh Mohamed Eida
GICICHLSR1706057

Utilization of rice straw and sugarcane bagasse for biosynthesis of lipid by oleaginous fungi

Ibrahim, E.A.
Central Research lab. Department, Co-Petrol com., Egypt

Saad, S.M.M.
Biochemistry Department, Faculty of Agricultural, Benha University, Egypt

Abd El-Maksoud, H.K.
Agricultural Microbiology Department, National Research Center, Egypt

Abd El-Rahman, A.A.
Biochemistry Department, Faculty of Agricultural, Benha University, Egypt

Eida M.F
Agricultural Microbiology Department, National Research Center, Egypt

Abstract

Lipids producing microorganisms utilizing waste materials is important for biodiesel production and reducing waste accumulation. This work aimed at utilization and evaluation of some waste degrading fungi for production and evaluation of lipid as feedstock for biodiesel.

Twelve fungal isolated were selected amongst 40 isolates which was previously isolated, morphologically identified and evaluated for waste degradation ability. It was examined for biomass production and lipid accumulation capability through fermentation of rice straw and sugarcane bagasse. Four isolates were selected for growth optimization towards C/N ratio, pH value and incubation period according their lipid yield. In batch experiment, the selected isolates were cultured for 30 days for lipids production. The produced lipids were extracted and evaluated. To identify the selected isolates, the ITS region of

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fungal rRNA was amplified and sequenced.

Four fungal isolates were characterized as highly potent biomass and lipid producers. These isolates were nrc12, nrc14, nrc19 and nrc40 which showed high lipid accumulation percentage "35.17, 32.19, 22.97 and 22.28, respectively". These isolates were identified as Aspergillus terreus, Trichoderma harizianum, Fusarium oxysporum and Penicillium palitanans, respectively. When grown on rice straw (Rc) and sugarcane bagasse (Sb), F. oxysporum and P. palitanans showed the highest lipid yield at different C/N ratios, respectively. At different pH values, isolates grown on Sb accumulated higher lipid yield compared to Rc. Increasing the incubation period raised the lipid production. The highest lipid yield was recorded for A. terreus (2.2 g/l) followed by F. oxysporum (1.89 g/l) after 24 days when grown on Rc and Sb, correspondingly. In batch experiment, F. oxysporum displayed the highest biomass (4.08 g/l), lipid content (1.35 g/l) and lipid percentage (33.19 g/l). The fatty acids profile analysis by GC exhibited high presence of C16-18 fatty acids as main parameters for biodiesel production which constituents varied according to fungi isolate.

Lignocellulolytic oleaginous fungi could be efficient source for biodiesel production. Aspergillus terreus, Trichoderma harizianum, Fusarium oxysporum and Penicillium palitanans are competent candidates for utilizing organic wastes for biodiesel production.

Keywords: microbial lipids, oleaginous fungi, rice straw, bagasse, growth optimization.

Arthrospira Asparaginase: Storage, and biological activities

Hanaa H. Abd El Baky
Plant Biochemistry Department, National Research Centre, 33 El Buhouth St., Dokki, Cairo, Egypt

Gamal S. El Baroty
Biochemistry Department of, Faculty of Agriculture, Cairo University, Cairo, Egypt

Dr. Hanaa Abd El Baky
GICICHLSR1706058

Abstract

L-Asparaginase has been widely used as a food ingredient in thermally processed food and as a therapeutic agent in the treatment of certain human cancers. L-Asparaginase produced from Arthrospira (S. maxima) were immobilized on natural polymers such as agar cake beads, agarose pieces and gelatin blocks agar, agarose and calcium alginate in order to physical entrapment techniques were determined. It was found the tested biopolymer had the ability to produce the immobilized S. maxima enzyme L-Asparaginase with various efficiency degree. The highest immobilized activity and highest immobilization yield were obtained with agar cakes bead, which will, consequently, reduce both the enzyme and the product costs.

The native S. maxima L-asparaginase showed a good antiviral activity against Coxsackie B3 Virus in a dose dependent manner with an IC50 of 17.03 µg/ml. . The action mode of this effect is presumably due to their capability of inhibiting attachment and blocking the adsorption and penetration events of the viral replication cycle with 89.24%, 72.78% and 72.78%, respectively. In Human cancer cell line including lung carcinoma A 549, hepatocellular carcinoma cells Hep-G2 and prostate carcinoma PC3 the antiproliferative

	effects of native L-asparaginase were observed as assessed by MTT cell viability assay. The IC50 values of asparaginase were found to be 22.54, 24.65 and 56.61 ☐g/ml for Hep-G2> PC3> A 549, respectively. For the first time, an L-asparaginase from S. maxima was evaluated as an antitumor agent in human cell lines and further investigations should be conducted to improve the S. maxima enzyme.
Arash Shishehian GICICHLSR1706059	**Patient need's,desire vs dentist ability in new methods of full mouth reconstruction** **Arash Shishehian** **Prosthodontic Department, Hamedan University Of medical Science, Hamedan, Iran** **Abstract** **This presentation summarizes key aspects of the interdisciplinary approach to implant or non implant-based treatment in fully edentulous patients . Measures of success generally include implant integration and health of the surrounding periodontal tissues; in the fully edentulous patients function is the greatest issue for dentist, aesthetics must also be measured as a patient first demand. A successful team approach to treatment mandates that the periodontist have a clear understanding of what is expected in terms of the restorative result, including the restorative materials that will be used, as implant position or teeth alignment can significantly impact this. Equally important, the restoring dentist must understand the surgical treatment options and the procedural limitations in terms of tissue regeneration and implant placement . The goal of this presentation is to sensitize the participant to the changing treatment concepts and methodologies used today in both the surgical and restorative phases of edentulous treatment. The principle areas of treatment explored include: emerging hard tissue management of procedures and materials; enhancing the gingival biotype and gingival volume; implant placement space management and restoration strategies that may impact soft and hard tissue stability; and the impact of implant and abutment designs on hard- and soft-tissue volume and post-restoration stability.**
Shyfany Krismarestuti GICICHLSR1706062	**AMOBA Application of Mother and Baby as Maternal Education During Pregnancy up to Two Years Old** **Shyfany Krismarestuti** **Department of Health Service, Vocational Collage** **Yuni Rahmawati** **Department of Health Service, Vocational Collage** **Abidurrahman Alfaruq** **Department of Electrical Engineering and informatics, Vocational Collage** **Ana Amirotun Solihah** **Department of Health Service, Vocational Collage** **Rizky Puspa Dewi** **Department of Health Service, Vocational Collage**

Savitri Citra Budi
Department of Health Service, Vocational Collage, Universitas Gadjah Mada, Yogyakarta, Indonesia

ABSTRACT

Introduction. Maternal and infant health is matter of concern in Indonesia by reducing maternal mortality. In an effort to emphasize the mortality rate and the improvement of maternal and child health, is needed innovation in the form of information technology as means of education for pregnant women.

Aims. Creating innovation in form of information technology aims as one form of innovation for educational facilities in an effort to reduce maternal mortality and improve maternal and child health.

Method. This research used descriptive qualitative research with phenomenological approach. Subjects in the study were Head of Puskesmas Jetis Yogyakarta, 37 health cadres, 45 mothers including pregnant women and new mothers. Sampling is done by interview and observation. For data validation we used source triangulation.

Results. AMOBA Application of Mother and Baby is one form of innovation that can be used as a means of education of mother and child health that can be used on android smart phone. We made cooperation with Puskesmas Jetis Yogyakarta to assist in AMOBA socialization.

This Application gets good response from the Head of Pusesmas Jetis Yogyakarta, health cadres, and the community as users. Therefore, the public gets education so that the maternal mortality rate is reduced and the maternal and child health status increases.

Conclusion. Application of Mother and Baby is the latest innovation that can be used as an educative means of mother and child, to increase knowledge about mother and child health and can suppress maternal mortality rate at Puskesmas Jetis Yogyakarta.

Keywords. AMOBA, Mother and Baby health, Maternal education

Fish waste fermented and bacterial cellulose hybrid scaffold production for improved biomedical application

Fazli Subhan
Department of Microbiology SMME National University of Sciences and Technology , Islamabad, Pakistan

Isfahan Tausee
Department of Zoology SMME National University of Sciences and Technology , Islamabad, Pakistan

Atta Ur Rehman
Department of Biomedical Engineering SMME National University of Sciences and Technology , Islamabad, Pakistan

Adeeb Shehzad
Department of Biomedical Engineering SMME National University of Sciences and Technology , Islamabad, Pakistan

Fazli Subhan
GICICHLSR1706066

Abstract:
Cellulose is the most abundant polymer on earth and applied in a various field of industries. The bacterial cellulose are considered the most attractive due its high level purity and easily modified nature. The second most important target in biomedical and food industries are collagen and especially the collagen of fish waste industries. The novel point of this study are the application of Bacillus species and Acetobacter xylinum for fermentation of fishes waste for the production of modified bacterial cellulose in a natural process. The existing discovery narrates to a unique collagen production method where the Bacillus species and Acetobacter xylinum bacteria used to ferment the collagen-containing tissues of fishes waste for the extraction of collagen as well as collagen containing modified bacterial cellulose. This study also include the collagen containing bacterial cellulose application for skin regeneration and biosafety. We hope that the novel creativity not only minimize the cost and effort of collagen extract, bacterial food consumption but will also produce a naturally modified bacterial cellulose for improved skin regeneration and biosafety.
Key words: Fishes, Fermentation, Bacterial cellulose, Biomedical,

Prof. Dr. Gamal El-Baroty
GICICHLSR1706067

Production of food ingredient from Spirulina platensis microalgae and its anticancer and antioxidant properties

Gamal S. El Baroty
Biochemistry Department of, Faculty of Agriculture, Cairo University, Cairo, Egypt

Hanaa H. Abd El Baky
Plant Biochemistry Department, National Research Centre, Dokki, Cairo, Egypt

Abstract:
Microalgae have recently aroused considerable interest due to its capacity to produce a large amount of the bioactive food ingredients when grown under a variety of environmental and nutrient stresses in conditions. Spirulina platensis SP grow in defining growth nutrient conditions (changes nitrogen, sulfur and phosphate concentrations in nutrient growth medium) to the total lipid and pigment or steroids accumulation. The most potent condition was chosen for cultivation of microalgae at large scales conditions in 400 liter photo-bioreactor (PBR) to obtained high biomass containing high amounts of bioactive compounds.

Spirulina grow in micronutrient limitation (nitrogen N, sulfur S and phosphate P concentrations in nutrient growth medium) accumulated high yield of lipid, pigment and steroids compounds. Under large scale condition, Spirulina grow in combined limitation of P, S and N in 400 liter photo-bioreactor had a high yield of biomasses containing a large quantity of total lipid and steroids. These compounds exhibited a scavenging radical's activity toward DPPH, ASTP and $^{\cdot}$OH radicals with IC_{50} values of 25.73, 15.24 and 21.11 μg/ml, respectively. Moreover, these compounds exhibited in vitro inhibition of proliferation of human cancer cell lines: MCF-7, Hep-G2 and HCT-116, with IC_{50} values ranged from 5.49 to 11.42 μg/ml. Thus, Spirulina could be used as a source of nutraceutical ingredients for production of functional.
Keywords: Spirulina, food ingredient, anticancer, antioxidant

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Computational Studies of Enzymes and Enzyme-like Inorganic Systems

Hajime Hirao
Department of Biology and Chemistry, City University of Hong Kong, Hong Kong, China

Hajime Hirao
GICICHLSR1706055

Abstract
We use computational chemistry techniques such ash quantum chemistry, multiscale QM/MM and QM/QM approaches, and many other advanced computational chemistry techniques to study biological (metallo)enzymes. Despite the complexity of biological systems, we show that computational chemistry is capable of providing valuable atomic-level insights into their chemical reactions. By applying computational chemistry techniques to other non-biological systems, we are also trying to understand the differences between biological and non-biological systems. In addition to applying computational chemistry to specific problems, we are developing efficient computational methods and algorithms, in the hope that our new computational methods will expand the capability of computational chemistry and thereby enable one to simulate the behavior of complex molecular systems with higher reliability and predictability in the future.

Investigating Anti-neuroinflammatory Mechanism of Madecassoside in Lipopolysaccharide-induced BV2 Microglia Cells

Andrew Octavian Sasmita
GICICHLSR1706056

Andrew Octavian Sasmita
International Medical University, 126, Jln Jalil Perkasa 19, Bukit Jalil, 57000 Bukit Jalil, Wilayah Persekutuan Kuala Lumpur, Malaysia.

Rhun Yian Koh
International Medical University, 126, Jln Jalil Perkasa 19, Bukit Jalil, 57000 Bukit Jalil, Wilayah Persekutuan Kuala Lumpur, Malaysia.

Kenny Gah Leong Voon
International Medical University, 126, Jln Jalil Perkasa 19, Bukit Jalil, 57000 Bukit Jalil, Wilayah Persekutuan Kuala Lumpur, Malaysia.

Ying Pei Wong
International Medical University, 126, Jln Jalil Perkasa 19, Bukit Jalil, 57000 Bukit Jalil, Wilayah Persekutuan Kuala Lumpur, Malaysia.

Anna Pick Kiong Ling
International Medical University, 126, Jln Jalil Perkasa 19, Bukit Jalil, 57000 Bukit Jalil, Wilayah Persekutuan Kuala Lumpur, Malaysia.

Abstract
Neurodegeneration is often preceded by neuroinflammation generated by the nervous system to protect itself from tissue damage; but excess neuroinflammation might inadvertently cause more harm to surrounding tissues. Combating neuroinflammation with non-steroidal anti-inflammatory drugs (NSAIDs) has been proven to halt neurodegeneration, but this poses chronic side effects (e.g. stomach ulcers); thus, considering alternative agents as

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a remedy, madecassoside, a triterpene derived from Centella asiatica, is investigated. This study utilized BV2 microglia which were pre-treated with madecassoside at maximum non-toxic dose (MNTD) (9.5 μg/mL) and ½ MNTD (4.75 μg/mL) for 3 hours followed by 0.1 μg/mL of lipopolysaccharide (LPS) stimulation. Anti-neuroinflammatory properties of madecassoside were firstly assessed through reactive oxygen species (ROS) levels determination. Similarly, expression of pro- and anti-neuroinflammatory genes and proteins were analysed through real-time polymerase chain reaction (qPCR) and Western Blot, respectively. ROS levels in madecassoside treated cells were significantly reduced compared to LPS-treated cells alone. Pro-neuroinflammatory genes, namely iNOS, COX-2, STAT1, and NF-kB, analysed via qPCR also showed significant downregulation upon treatment with madecassoside in a dose-independent manner. Contrarily, the anti-neuroinflammatory HO-1, showed significant upregulation of 175.22% at MNTD treated group as compared to LPS-treated cells alone. Gene expression profiles were also analysed to be consistent to the Western Blot analysis. The findings of this study thus suggest that madecassoside has a wide potential on being a potent anti-neuroinflammatory agent. Its known antioxidative properties which play a major role in anti-neuroinflammation makes it a very interesting compound to study further in vivo or subsequent molecular studies.

Keywords: Centella asiatica, Cyclooxygenase, Heme oxygenase 1, Madecassoside, Microglia, Neuroinflammation, Reactive oxygen species.

Mohamed Fathallh Mohamed Eida
GICICHLSR1706057

Utilization of rice straw and sugarcane bagasse for biosynthesis of lipid by oleaginous fungi

Ibrahim, E.A.
Central Research lab. Department, Co-Petrol com., Egypt

Saad, S.M.M.
Biochemistry Department, Faculty of Agricultural, Benha University, Egypt

Abd El-Maksoud, H.K.
Agricultural Microbiology Department, National Research Center, Egypt

Abd El-Rahman, A.A.
Biochemistry Department, Faculty of Agricultural, Benha University, Egypt

Abstract:
Lipids producing microorganisms utilizing waste materials is important for biodiesel production and reducing waste accumulation. This work aimed at utilization and evaluation of some waste degrading fungi for production and evaluation of lipid as feedstock for biodiesel.
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fungal rRNA was amplified and sequenced.

Four fungal isolates were characterized as highly potent biomass and lipid producers. These isolates were nrc12, nrc14, nrc19 and nrc40 which showed high lipid accumulation percentage "35.17, 32.19, 22.97 and 22.28, respectively". These isolates were identified as Aspergillus terreus, Trichoderma harizianum, Fusarium oxysporum and Penicillium palitanans, respectively. When grown on rice straw (Rc) and sugarcane bagasse (Sb),   F. oxysporum and P. palitanans showed the highest lipid yield at different C/N ratios, respectively. At different pH values, isolates grown on Sb accumulated higher lipid yield compared to Rc. Increasing the incubation period raised the lipid production. The highest lipid yield was recorded for A. terreus (2.2 g/l) followed by F. oxysporum (1.89 g/l) after 24 days when grown on Rc and Sb, correspondingly. In batch experiment, F. oxysporum displayed the highest biomass (4.08 g/l), lipid content (1.35 g/l) and lipid percentage (33.19 g/l). The fatty acids profile analysis by GC exhibited high presence of C16-18 fatty acids as main parameters for biodiesel production which constituents varied according to fungi isolate.

Lignocellulolytic oleaginous fungi could be efficient source for biodiesel production. Aspergillus terreus, Trichoderma harizianum, Fusarium oxysporum and Penicillium palitanans are competent candidates for utilizing organic wastes for biodiesel production.

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Hanaa H. Abd El Baky
Plant Biochemistry Department, National Research Centre,Egypt

Gamal S. El Baroty
Biochemistry Department of, Faculty of Agriculture, Cairo University, Cairo, Egypt

Dr. Hanaa Abd El Baky
GICICHLSR1706 058

Abstract:

L-Asparaginase has been widely used as a food ingredient in thermally processed food and as a therapeutic agent in the treatment of certain human cancers. L-Asparaginase produced from Arthrospira (S. maxima) were immobilized on natural polymers such as agar cake beads, agarose pieces and gelatin blocks agar, agarose and calcium alginate in order to physical entrapment techniques were determined. It was found the tested biopolymer had the ability to produce the immobilized S. maxima enzyme L-Asparaginase with various efficiency degree. The highest immobilized activity and highest immobilization yield were obtained with agar cakes bead, which will, consequently, reduce both the enzyme and the product costs.

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assay. The IC_{50} values of asparaginase were found to be 22.54, 24.65 and 56.61 µg/ml for Hep-G2> PC3> A 549, respectively. For the first time, an L-asparaginase from S. maxima was evaluated as an antitumor agent in human cell lines and further investigations should be conducted to improve the S. maxima enzyme.

Availability of life support equipment and its utilization by driver of ambulance linked to BPKIHS, Dharan

Acharya R,
Badhu A.
Community Health Nursing, College of Nursing B.P.Koirala Institute of Health Sciences, Dharan, Nepal Dharan , Nepal

Angur Badhu
GICICNM1706053

Abstract
Background and Objective: An effective ambulance is a vital requirement for providing an emergency medical service. Well-equipped ambulances with trained paramedics can save many lives during the golden hours of trauma care. The objective was to document the availability and utilization of basic life support equipment in the ambulances and to assess knowledge on first aid among the ambulance driver.
Materials and Methods: Descriptive design was used for the study. Purposive sampling method was used and a total of 109 ambulance linked to BPKIHS were enrolled in the study. Self- constructed observation checklist and semi structured interview schedule was used to assess the availability of equipment and knowledge on first-aid.
Results: The study revealed that more than half of the respondents had less than five years of experience and were not trained in first aid. About two-third (64.2%) of the respondents had adequate knowledge on first aid. About 90% of the ambulance had oxygen cylinder and adult oxygen mask. The other equipment available were nasal catheter, I/V stand and stretcher cum bed. Among them oxygen cylinder and oxygen mask were usually used equipment. Just more than half (53.2%) of ambulance had equipment less than 23% as compared to that of required for basic life support. There was significant association of knowledge with the experience (p = 0.004) and training (p = 0.001). There was significant association of availability with training received (p = 0.007), district (p = 0.023) and organization (p= 0.032) in which the ambulance is
Registered. **Conclusion:** The study concludes that maximum ambulance linked to BPKIHS, Nepal did not have even one fourth of the equipment for basic life support. The equipment usually used was oxygen cylinder and oxygen mask. Majority of driver had adequate knowledge on first aid and it was associated with training and experience.
Key Words: Availability, Utilization, Knowledge

Nurses' self-awareness from group dialogue: A qualitative study

Yun-Hsuan Lin
Lecturer, Department of Nursing, Ching Kuo Institute of Management and Health, & Doctoral Candidate, School of Nursing , National Yang-Ming University, Taiwan

Chiu-Mieh Huang

Yun-Hsuan Lin
GICICNM1706055

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Professor, Institute of Clinical Nursing, National Yang-Ming University, & Supervisor, Department of Nursing, National Yang-Ming University Hospital, Taiwan

Abstract

Self-awareness can help nurses increase their concern for patients and perceive the patients' real needs. Conversely, group dialogues help learners engage in self-exploration as well as facilitate their diversified and deep thinking. Therefore, group discussions have been viewed as a feasible nursing education strategy. The purpose of this study was to explore and analyze the development of self-awareness among nurses through group activities. Using a descriptive and qualitative research design, data were collected at 13 sessions of 90-minute unstructured group meetings from October 2014 to January 2015. The group activity process was audio-recorded and transcribed, and the transcripts were further examined through content analysis. The major research findings were as follows: 1. the development of self-awareness includes the three stages, namely mirror reaction, resonance, and awareness; 2. self-awareness includes: (1) a self developed according to others¬¬¬¬¬¬¬¬—through gaining others' recognition and being mindful of others' opinions, and (2) a true self developed through seeing oneself and looking inside oneself. The results of this study can serve as referential information for nursing education to elevate nurses' self-awareness.

Ram Sharan Mehta **GICICNM1706056**	**Assessment of Factors Contributing to Phlebitis among the Patients admitted in Medical-Surgical Units of BPKIHS**

Rana S
Department of Medical-Surgical Nursing, B.P. Koirala Institute of Health Sciences

Mehta RS
Department of Medical-Surgical Nursing, B.P. Koirala Institute of Health Sciences

Parajuli P
Department of Medical-Surgical Nursing, B.P. Koirala Institute of Health Sciences

Mandal G
Department of Medical-Surgical Nursing, B.P. Koirala Institute of Health Sciences

Abstract

Background and Objectives: Phlebitis, an inflammation of the tunica intima of vein by mechanical, chemical or bacterial sources, is the main local complication associated with peripheral intravenous cannula and, occurs between 3.7% and 67.24% of patients. It causes significant pain; discomfort; failure and interruption to prescribed therapy; and requirement for new cannula insertion with associated increased equipment costs and staff time. Cannula related bacterial sepsis can jeopardize patient's life. The main aims of this study are to assess the contributing factors of phlebitis among admitted patients in Medical-Surgical Units of BPKIHS and to find out the association between selected

variables and phlebitis.

Materials and Methods: Descriptive cross-sectional design was adopted to conduct the study among 120 admitted patients with cannula having phlebitis in Medical-Surgical Units of BPKIHS. Data was collected from December to January 2016 for 4 weeks using interview questionnaire and observation checklist and later analyzed using descriptive (mean and standard deviation) and inferential (Chi-Square Test) statistics using SPSS 16 version.

Results: Mostly (45.8%) moderate phlebitis was observed followed by mild (39.2%) and severe (15%) in the subjects. Most of the subjects (47.5%) were between age group 30-60 years with more than 7 days of hospitalization (80.8%). Most of them had 20G cannula (76.7%); inserted in wrist (49.2%); first insertion (33.3%); successful in first attempt (83.3%); in ward (78.3%); by Nurses (97.5%); under antibiotics (90.8%) and intermittent infusion (55.8%). Significant association was found between age, Residence, ethnicity, body weight and phlebitis.

Conclusion: Considerable moderate and severe phlebitis in the study subjects are crucial findings. It can be concluded that phlebitis is independent of cannula and infusion related contributing factors.

Key Words: Contributing factors, Phlebitis, Patient

Henri Setiawan **GICICNM1706058**	**Genetic Counseling Reduces The Level Of Depression On Parents Of Children With Thalassemia Major** **Henri Setiawan** **Student of Master Program of Biomedical Science, Faculty of Medicine Diponegoro University** **Annastasia Ediati** **Faculty of Psychology Diponegoro University** **Tri Indah Winarni** **Center for Biomedical Research (CEBIOR), Faculty of Medicine Diponegoro University** **Abstract** Thalassemia major disease is a chronic disease that the prevalence is always increasing in Indonesia from 3,653 cases in 2006 to 5,501 cases in 2011. Besides having an impact to the patient's health physically, thalassemia major also gives psychological impact such as depression in parents of the patients with thalassemia major. One attempt to suppress the psychological impact of thalassemia major is by giving genetic counseling to the patients and parents. This research used quasi-experimental with pretest-posttest group design. The parents were given genetic counseling treatment and the measurement of the depression level was conducted before and after the treatment was given. Beck Depression Inventory (BDI) II was used to measure the level of depression. Wilcoxon test was used to determine the changes of the depression level, while the statistical test of Paired Sample Tests was used to assess the depression scores before and after the treatment. From a population of patients with thalassemia major, as many as 44 parents fulfilled the inclusion criteria as respondents. The majority of respondents (65.91%) experienced a positive change in the decrease of depression level after taking genetic counseling (Meanpre = 16.31; Meanpost = 11.50; $p < 0.05$). For parents of children with thalassemia major, genetic counseling can reduce the level of depression.

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	Keywords: Thalasemia major, depression, genetic counseling
Yayehyirad Yemane **GICICNM1706061**	**Assessment Of The Associated Factors, Management And Complications Of Uterine Rupture At Mizan-Tepi University Teaching Hospital, Mizan-Aman Town, Bench-Maji Zone, Snnprs, South West Ethiopia, 2016/17.A Case Control Study** **Yayehyirad Yemane** **Department of Midwifery College of Health Sciences,Mizan-Tepi University,Mizan-Teferi Ethiopia** **Workineh Gizaw** **Department of Midwifery College of Health Sciences,Mizan-Tepi University,Mizan-Teferi Ethiopia** **Abstract** **Background: Uterine rupture is tearing of the uterine wall during labor or delivery. Rupture of a previously unscarred uterus is usually a catastrophic event resulting in death of the baby, extensive damage to the uterus and sometimes even maternal death from blood loss.** **The overall incidence of uterine rupture is 1 in 2,000 deliveries. In developing countries, uterine rupture is more prevalent and is a serious problem.** **Objective: To Asses the associated factors, management and complications of uterine rupture in Mizan-Tepi University Teaching hospital, Mizan-Aman town, Bench-Maji Zone, SNNPRS ,South west Ethiopia, 2016/17.** **Methodology: A Hospital based unmatched multi-factorial case-control study was employed from 1st October - 30th October 2016. The required sample size gave us a total of 352 Delivery Charts by considering case to control ratio of 1:4 , of these 71 were Delivery Charts with Uterine Rupture and 281were Delivery Charts without uterine Rupture were selected by using lottery method. Data was retrieved using pre-tested and structured data extraction format from operation notes, delivery registers and patients cards documented from2013-2015G.C. Using SPSS version 20 software, descriptive statistics ,bivariate and multivariate logistic regression analysis was done and p-value <0.2 and ≤0.05 were considered as significant during bivariate and Multivariate logistic regression analysis Respectively . AOR with 95% CI was used to control for possible confounders and to interpret the result.** **Result- From 1st January 2013 up to 31st December 2015 there were a total of 9878 Deliveries from these 71 Cases of uterine rupture were recorded giving an incidence of 1 in 139 Deliveries. Predisposing factors for uterine rupture were No antenatal care (AOR 4.08 95% CI 1.924-8.651), Labor Duration>18hrs (OR 2.769 95% CI 1.231-6.226), parity ≥ 5(AOR 6.16 95% CI 2.886-13.148), Having Obstructed Labor (AOR 2.714 95% CI 1.228-5.720), No use of Partograph (AOR 2.248,95% CI 1.049-4.817).There were 7 maternal deaths due to uterine rupture during the study period giving a Mortality Rate of ~ 0.07% .** **Conclusion-Uterine rupture still remains one of the major causes of maternal and newborn morbidity and mortality .The prenatal mortality for both case and controls is high in Mizan-Tepi University Teaching Hospital.** **Key words – uterine rupture, associated factors, management, and complications.**
Mangala Shrestha **GICICNM1706051**	**Perceived Risk Behaviors and Barriers to Utilization of Sexual and**

Reproductive Health (SRH) Services among Female Higher secondary school Students of Biratnagar Sub- Metropolitian City

UpadhyayShweta
M.Sc. Nursing
Shrestha Mangala
Professor, Department of Maternal Health Nursing, BPKIHS, Dharan, Nepal

Abstract

Background: Adolescents and young adults (15–24 years old) make up only 25% of the sexually active population, but represent almost 50% of all new acquired STIs while the utilization of SRH services in Nepal is among the least (33%) among the countries in Asia. The SDG aims at providing universal access to sexual and reproductive health care services; the utilization of which in turn depends on the perception of the individual towards the health services.

Objectives: To assess the perception regarding risk behaviors and barriers to utilization of sexual and reproductive health services among female higher secondary school students of Biratnagar Sub- Metropolitian City.

Methods: A descriptive cross-sectional study adopting Mixed Method with Triangulation of data was used to collect data among the female higher secondary school students in Biratnagar.

Result: The mean score of correct identification of risk behavior for STI was 7.31 of the total 10. The respondents reported Disagreement with the provision of youth friendly sexual and reproductive health services (aggregate mean score is 3.48). The major barriers to utilization of Sexual and Reproductive Health Services expressed by the adolescents were being

ashamed/ afraid to share problem, afraid to meet someone they know at the health facility, no feasibility of time, perception of inefficient health personnel, behaviors of health personnel, lack of adequate information about sexual and reproductive health, diseases and services

available.

Conclusion: There is a call for action to the stakeholders and health personnel from the mass of female youth of eastern Nepal for the delivery of respectful, efficient, resourceful, flexible and peer-based sexual and reproductive health services in youth-friendly environment.

Key words: Adolescents, Risk behaviors, STI, Sexual and Reproductive Health Services, Barriers to utilization.

Prevalence of Low Back Pain and Associated Factors among Nurses Working at Bpkihs Dharan, Nepal

Regmi B
Department of Medical Surgical Nursing

Parajuli P
Department of Medical Surgical Nursing

Regmi B
GICICNM1706054

Abstract

Background: Nursing is an occupation associated with high risk of developing low back pain (LBP) due to their nature of work practices. Modifiable personal factors, work characteristics and psychosocial factors which contribute to LBP have proven difficult to identify Objectives: To assess the prevalence of LBP and

the associated factors among nurses working BPKIHS.

Methods: A descriptive cross sectional study was conducted involving 241 nurses working (BPKIHS) between 22nd December 2013-18th January 2014. They were sampled using Clustered Random Sampling technique. A pretested semi-structured self-administered questionnaire was used. Data were analyzed using descriptive and inferential statistics at 0.05 level of significance.

Results: The prevalence of LBP, current prevalence and the prevalence of chronic LBP was 46.5%, 50.9% and 25.9% respectively. More than three-fourth (78.6%) of the respondents perceived their LBP as work-related. Factors that showed significant association with LBP were Body Mass Index of the respondents, heavy lifting household chores, regular exercises, years of working experience, perceived mental stress in work, workload and job satisfaction. Logistic regression analysis indicated that age of the respondents and heavy lifting household chores were significant predicting factors whereas regular exercise and carrying heavy loads in work were significant protective factors for LBP after adjusting other factors.

Conclusion: The prevalence of low back pain among nurses in BPKIHS was high even though they comprise a very young workforce. Many risk factors were identified that would necessitate multidisciplinary involvement to reduce the prevalence of LBP.

Key words: Low back pain, prevalence, nurses.

Hanna Lee
GICICNM1706059

Risk of Breastfeeding Cessation among Mothers in Korea: A Survival Analysis

Hanna, Lee
Department of Nursing, Changwon National University, Gyeongsangnam-do, Korea

Eun Kyoung, Yun
Changwon National University, Gyeongsangnam-do, Korea1 Kyung Hee University, Seoul, Korea

Abstract

Objectives: The aim of this study was to identify risk factors for discontinuing breastfeeding among mothers in Korea.

Methodology: The multivariate model for predicting the discontinuation of breastfeeding and adjusted Kaplan-Meier survival curves were used. The subjects of this study were 935 mothers who were surveyed in the fifth National Health and Nutrition Survey.

Findings: First, of the 935 participants, 642(67.0%) discontinued breastfeeding within the first 12 months. Second, survival curves showed significant differences in breastfeeding cessation rates for the infant's weight (p=.029) and gestational age (p=.026). Breastfeeding cessation rates were lower for mothers whose infants weighed below 2.5 kg. The average and median times estimated for breastfeeding were 5.9(3.0) and 8.6(9.0), respectively. For children below 37 weeks of gestational age, the breastfeeding was for a shorter duration than over 37 weeks of gestational age group. For this group, the average and median times estimated for breastfeeding were 5.3(3.0) and 8.6(9.0), respectively. Finally, the reasons for discontinuing breastfeeding were breast milk deficiency (62.29%, 403 cases) and occupation (10.2%, 66 cases).

Research Outcomes: Mothers who have premature infants often stop

breastfeeding earlier than mothers who have full-term infants. The results suggest that education and support are needed for mothers who have premature infants. The results of our study are expected to provide basic information for the development of meaningful breastfeeding programs for mothers.

Future Scope: Future research is needed to identify the factors that affect premature infant breastfeeding.

Key words: Breastfeeding, Infant, Mother, Survival analysis

LISTENERS

Lachlan lock **Primary health care, Flinders University, Australia** **GICICHLSR1706052**
Vijayaraddi Vandali **Medical Surgical Nursing Sumandeep Nursing College, Sumandeep University Vadodara-Gujarat, India** **GICICHLSR1706063**
Ngwei Emmanuel Linwe **Humanity, Ngwei And Wife Ets, Bamenda-Cameroon** **GICICHLSR1706064**
Kongnyuy Lemnyuy **Humanity, Khalir And Wife Ets, Yaounde-Cameroon** **GICICHLSR1706065**
Poonpoj Hantitipart **Paediatric, St George Hospital, Sydney, Australia** **GICICNM1706052**
Bharati Adhikari **Tribhuvan University Institute of Medicine, Tribhuvan University, Kathmandu, Nepal** **GICICNM1706057**
Mathew Mehtab **Aga Khan University, Hospital Oncology Department, Karachi, Pakistan** **GICICNM1706060**

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