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August 25-26, 2018

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August 25-26, 2018

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Book of abstracts

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Office Address:
7-8-1 Hongo, Bunkyo, Tokyo 113-0034
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Organizing Committee

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2. **Mr Leon Yap**

    Conference chiar

3. **Hideo Owan**

    Conference Coordinator

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Conference Chair Message

Dr Ishida Otaki

"Tokyo Academy of Research & Innovation" 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 honourable 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 Ishida Otaki
Conference Chair
PBAR-Secretariat, 2018

Conference Schedule

DAY 01 Saturday (August 25, 2018)

<u>Venue: Room 1</u>

09:00 am – 09:10 am	Welcome Reception & Registration
09:10 am – 09:20 am	Opening Ceremony
09:20 am – 09:30 am	Welcome Remarks – Conference Coordinator TARIJ
09:30 am – 09:40 am	Introduction of Participants
09:40 am – 9:50 am	Group Photo Session
09:50am – 10:00 am	Grand Networking Session and Tea Break

DAY 01 Saturday (August 25, 2018)
Session 1 (10:00 am – 12:30 pm)
Venue: Room 1
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PBAR-AUG-109	Exploring Indigenous Traits of Chinese Knowledge Workers	Kuok Kei Law
PBAR-AUG-111	An Assesment of Farm to Table Strategy in Thailand	Narong koojaroenprasit
PBAR-AUG-114	The Information Transmission of the Different Types of Investors: Evidence from the Taiwan Stock Exchange	Mei-Chu Ke
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PBAR-AUG-121	Fine Dust Policy Agenda Setting Using Topic-Modeling Methodology	Kyungshik Shin
TKS-488-101	Policy Implementation among Indigenous People: A Case Study of the Raute Community in Nepal"	Banu Yasin,
PBAR-AUG-110	Organization Analysis of Taiwan's Cross-border Telecommunications Fraud	Hui-Chun Chang

Lunch Break 12-30 pm to 01-30 pm

DAY 01 Saturday (August 25, 2018)
Session 2 (01:30 pm – 04:00 pm)
Venue: Room 1
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Track A: Engineering, Technology & Applied Sciences

SECIT-AUG18-104	**A New Structure of the Typhoon Bogus Wind Tangential Profile**	**Wu YunFan**
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SECIT-AUG18-109	A Development of Animation Media on ICT in the Topic "Arts of Thai Boxing"	Assoc.Prof.Dr Surapon Boonlue
SECIT-AUG18-110	The Development of Motion Graphics on Social Media Network and Printed Media Through or Code Technology to Publicize the Domitory Network of King Mongkut's University of Technology Thonburi	Kuntida Thamwipat
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	DAY 02 Sunday (August 26, 2018)	

City History and Discussion Session

The purpose of the second day conference will be for the participants to learn more about the local history and culture, or get to know the other participants better. Therefore,

Option 1: City History and Culture Tour: All the participants are free to organize your own group tours together and get to know each other better.

Option 2: Discussion Session: All the participants are free to make group discussions on behalf of your same research interest and get a chance to cooperate in the future Research.

TRACK A: BUSINESS, ECONOMICS, SOCIAL SCIENCES AND HUMANITIES

Effect of Construction Policy and Legislation in Malaysia, Indonesia and Singapore on Affordable Housing

Suzaini M. Zaid[1*], Azah Yamin[2], Nur Farhana Azmi[3]

Abstract – Issues and challenges relating to affordable housing are complex and multifaceted, to say the least. According to the United Nations Centre for Human Settlement-UN Habitat, there is disparity in housing provision between countries and grave shelter problems that needs global responsibility and global commitment to effectively address. Similarly, in the 11th Malaysia Plan, main challenges in the provision of housing in Malaysia were identified as mismatch demand and supply chain, escalating housing prices in urban areas, lack of integrated planning and implementation, poor maintenance of public housing and insufficient amenities. Governments of different countries implement various national practices in housing programmes to support lower income communities to facilitate public housing development plans for each country. Housing programs were undertaken either by public or private sectors, further developed with communal and recreational facilities as proactive measures in regards of social needs and economic contribution. This paper evaluates the progress of housing programmes and policy in selected Southeast Asian countries, to mainly review its effect on construction costs. The differences and similarities between three Southeast Asian countries are explored and analytically interpreted to contribute to the development of the comparative study of housing policy. The challenge is to fill the gap between housing systems adding more optimal management of housing.

[1, 2, 3,] Department of Building Surveying, Faculty of Built Environment
University of Malaya
*E-mail: suzaini_zaid@um.edu.my

My Home Dot Com\": A House Affordability Tool

Nurshuhada Zainon[1] & Faizul Azli Mohd Rahim[2]

Abstract Having a house has always been part of everyone's dream. However, not everyone can afford to own a house due to the issue of discrepancy between the price of affordable houses and the income earned. This study aims to develop an interactive web-based application that capable to estimate how much households can afford to buy a house, given a certain personal financial condition. . This application will also provide the users information about potential locations. The tool was developed through a desktop study, integrating the affordability formula and houses database. For now, the application is limited to Klang Valley area. This application is beneficial to help the new house-buyers to assess their ability to own a house, based on their income and expenses. In addition, this web-based application is also very useful for financial institutions and property developers in analysing the trend of potential house-buyers.

Keywords: Affordable, housing affordability, homeownership, house price, house-buyers

[1, 2] Centre for Building, Construction and Tropical Architecture (BuCTA), Faculty of Built Environment, University of Malaya, Kuala Lumpur, Malaysia.
E-mail: zshuhada@um.edu.my

Exploring Indigenous Traits of Chinese Knowledge Workers

Kuok Kei Law[1*], Tak Yin Hui[2]

Abstract This is a short article elaborating on a proposal research idea to explore the indigenous traits of knowledge workers in Asian contexts such as China. The motivation behind the proposed research is that the traditional values associated with knowledge workers such as autonomy and empowerment proposed by western scholars seem to be in doubt in Asian contexts where obedience and respect for power are the prevalent values. Echoing other studies that have found indigenous models for Chinese workers, we postulate that there is a need for indigenous knowledge management model for Chinese knowledge workers. We are proposing to develop such a model through a two-phase study design. Contributions in both research and teaching will be resulted upon the completion of the proposed research.

Keywords: trait, knowledge worker, knowledge management, culture, Asia, China

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[1, 2] The Open University of Hong Kong
[*] E-mail: kklaw@ouhk.edu.hk

An Assesment of Farm to Table Strategy in Thailand

Narong koojaroenprasit[1], Sauwaluck Koojaroenprasit[2], Suwicha Kasemsuwan[3], Ruangvit Yoonpundh[4], Pattaragit Netiniyom[5], Saeree Jareonkitmongkol[6]

Abstract The purpose of this study is to evaluate the food safety strategy in Thailand. This study used primary and secondary data. Primary data was collected from durian farmers by using questionnaires, in-dept-interviews and observations. Secondary data was obtained from the Ministry of Agricultural and Cooperatives (MOAC). The study found that most of durian farmers graduated from primary school. They received the standard durian farm training program from the Department of Agriculture (DOA). The efficiency and effectiveness of the MOAC's food safety strategy implementation in the future should consider training government officers for operation skills and updated knowledge which congruent with uncertain environment under the food safety policy. Additionally, government agencies should support durian farmers for making their product differentiation. They can also act as intermediaries to promote price differences. Therefore, Thailand will reach the goal of "The Kitchen of the World".

[1, 2, 3, 4, 5, 6] Department of Cooperatives, Faculty of Economics, Kasetsart University
Bangkok, Thailand
*E-mail: feconrk@ku.ac.th, fecoslp@ku.ac.th

The Information Transmission of the Different Types of Investors: Evidence from the Taiwan Stock Exchange

Mei-Chu Ke[1]* Ming-Hui Wang[2]

Abstract This study examines the difference of the information transmission between institutional investors and the individual investors for the Taiwan Stock Exchange, and investigates the impact of transparency on information transmission for the two types of investors. The empirical results indicate that private information is the major factor which causes the trading-time return variances are higher than non-trading-time return variances. The finding also displays that the return variances of individual investors are higher than those of institutional investors in trading-time period. Moreover, the influence of institutional investors on price volatility principally comes from buyer. The influence of individual investors on price volatility comes from both buyers and sellers, and sellers contain more noise information. We also find that institutional investors prefer to defer private information to next non-trading-time period. However, individual investors prefer to disclose private information during trading-time period. Finally, the influence of private information on price volatility and noise on open price decrease significantly for the institutional investors following enhanced transparency. Oppositely, the influence of private information on price volatility increase significantly for individual investors following enhanced transparency.

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[1]Department of Industrial Engineering and Management, National Chin-Yi University of Technology, Taiwan, [2]Department of International trade, Takming University of Science and Technology, Taiwan"n
*E-mail: kemc@ncut.edu.tw

The Examination of Socially Responsible Investment on the Taiwan Stock Markets

Tung Liang Liao[1*], Mei-Chu Ke[2], Ya-Chi Chen[3]

Abstract This study examines the relationship between socially responsible investment (SRI) and portfolio performance on the Taiwan stock markets. The firms, received awards from the famous Common Wealth Magazine in Taiwan, are used to be our sample firms and the study period is from 2007 to 2015. A significant alpha for SSI portfolio is found with four-factor Carhart model, a risk-adjusted model. The performance of SSR portfolio also significantly dominates that of market portfolio with stochastic dominance test, an omitted risk-adjusted model. In addition, the results appear to be similar with two different models to test the robustness. An important implication of our results is that investors can earn the high or abnormal returns by selecting socially responsible firms.

[1, 3] Department of Finance, Feng Chia University, Taichung, Taiwan, [2] Department of Industrial Engineering and Management, National Chin-Yi University of Technology, Tai chung, Taiwan
[*]E-mail: tungliangliao@gmail.com

Audit Partner Independence and Business Affiliation: Evidence from Taiwan

Yu Shan Chang[*]

Abstract Affiliated business groups play important roles in markets, especially emerging markets. Both IAASB and PCAOB have expressed strong concerns about the audit quality of group financial statements. Audit quality is closely related with auditor independence (Tepalagul and Lin 2015). In this study, we examine whether audit partners are more likely to compromise their independence for clients affiliated with business groups. We incorporate the impact of business group in the construction of client importance proxy in order to explore the potential impact of clientele's business group affiliation. Our findings support that there is no evidence on Big N audit partners compromising their independence for economically important clients no matter whether the clients are affiliated or not. However, we find that the previously documented relation between client importance and audit partner independence in non-Big N audit partners rests with business-group-affiliated and unlisted clients. Therefore, we conclude that non-Big N audit partners tend to compromise their independence for economically important clients who are within affiliated business groups and not listed in stock exchanges.

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Department of Accounting College of Business & Management, Tamkang University
New Taipei City, Taiwan
*E-mail: ysc@mail.tku.edu.tw, stefanie0323@gmail.com

Organization Analysis of Taiwan's Cross-border Telecommunications Fraud

Yun-Wei Hung[1]、 Hui-Chun Chang[2*]、 Yu-Kang Lee[3]

Abstract Before 1996, fraud cases in Taiwan mostly operated independently. With the development of telecommunication technology and the globalization of culture and finance, fraud is nowadays evolved into cross-border organizational crimes. How did these organizations formulate and manage? What have they become in the 21st century? Are the conventional criminal theories suitable to explain the modern telecommunication fraud? This research attempts to clarify these issues through in-depth interviews with 12 organizational members of cross-border telecommunication fraud. This study applied P. Lupsha's Organized Crime Theory in Rational Choice Theory and the Enterprise Approach developed in 1970s to re-examine the uniqueness of cross-border telecommunication fraud organizations. Our research findings suggest that the organizations of Taiwan's cross-border telecommunication fraud act just like any other modern enterprises. Furthermore, this article reveals the evolution these organizations' formation, operation and management. These results not only uncover the actuality of cross-border telecommunication fraud organizations in Taiwan, but also provide a reference for the reconstruction of a renewed organized crime theory.

Keywords: Cross-border telecommunication fraud, Organized Crime Theory, Rational Choice Theory, Enterprise Approach

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[*]National Sun Yat-sen University, Taiwan
E-mail: elaine1421@gmail.com

Fine Dust Policy Agenda Setting Using Topic-Modeling Methodology

Kyungshik Shin[1*], Hyunseop Shin[2]

Abstract Recently, air pollution due to fine dust has become a big social problem in Korea. Therefore, this study aims to identify issues related to fine dust in the news articles using the topic modeling methodology to grasp the problem and present the direction for the future policy agenda setting. In this study, we applied a Latent Dirichlet Allocation methodology, one of the topic modeling techniques. Topic modeling is a methodology used to discover the central theme spread across documents and to detect patterns not only in various document sources but also in genetic data, images and social network data. The Latent Dirichlet Allocation goes through the process of setting the distribution of topics randomly in each document and then randomly including each word in one of the topics. Based on the frequency of concurrent occurrences of words, hidden variables are updated to derive document topics. Analyzed newspapers were searched in searching engine 'Naver' with keywords 'Fine dust'. As a result of the analysis, issues related to 'Health', 'China', 'Government and Seoul', 'Emissions of fine dusts in vehicles', and 'Concentration measurement and prediction' have appeared. To solve the problem of air pollution, various sectors' collaboration is needed. Industry cooperation, technology development, and changes in individuals' lifestyle should play a role, while government policies connect each part organically and present guidelines in advance. However, as a result of the analysis, the scope of policy actors was limited to the government and areas other than Seoul were not discussed. In the future, it is necessary to promote the participation of various actors in the fine dust policy. This study is meaningful in understanding the fine dust related topics that have been revealed in the news articles, pointing out the limitations of the current issues and suggesting directions for the future policy agenda setting.

[1,2] Department of Business Administration, Ewha Womans University, Seoul, South Korea
[*]E-mail: ksshin@ewha.ac.kr,shin306204@gmail.com

TRACK B: ENGINEERING & TECHNOLOGY, COMPUTER, BASIC & APPLIED SCIENCES

Invisible Watermarking on Grayscale Image

Mohd Shahrir Abd Rahim[1*], Nabilah Hasanah Binti Shaari[2], Nur Hafizah Binti Ghazali[3]

Abstract Digital watermarking is a procedure to embedded watermark or logo into image to avoid copyright and protect the image from being manipulated by others without owner approval. In Technical and Vocational Education and Training (TVET) sector, the main challenge in watermarking is how to achieve high imperceptibility or visual quality and robustness without sacrificing the capacity of the cover image. In addition, the watermark should be able extracted without any distortion. As for that, spiral scan embedding technique is used to overcome this issue. The performance of the propose project is evaluated by comparing the results of extracting process using spiral scan technique with sequence technique, while the imperceptibility of the cover image is measured using Peak Signal Ratio (PSNR) and robustness of the watermarked image is measured using Normalized cross correlation (NCC). Result shows that the proposed technique obtains high imperceptibility and robustness.

[1]Department of Polytechnic Education, Ministry of Education Malaysia, [2, 3]Universiti Malaysia Perlis (Unimap)

*E-mail: nabilahshaari@yahoo.com, mohdshahrir8@gmail.com

The Practice of Design-Build Programs in Remote Areas in Taiwan

Chih-Ming Chien[1]*, June-Hao Hou[2]

Abstract Under the influence of open-source culture, more and more non-professionals in the Asian-Pacific have begun to engage in activities like space reformation and design-build programs in recent years. This study analyzed the design-build programs promoted by the Association of Humanitarian Architecture (AHA) in Taiwan in the last four years using participant observation combined with secondary qualitative study and documentation. Then, we used the Collaborative Construction Model established in the previous research for comparison. The objective is to provide international organizations that are planning to enter Asia-Pacific for collaborative construction with a comprehensive recommendation. We found that the participants in the cases built explicit knowledge by reading the construction manuals, and then gained tacit knowledge from the local professionals and vocational-school teachers within subdivided learning and processing lines. The outcome demonstrated that such an approach allowed the participants with different backgrounds to effectively work together, and leveraged the smaller number of on-site professionals.By making good use of the natives' tacit knowledge about their environment and local materials for collaborative construction, the participants experienced unexpected results and joys. It is common for Austronesian and the agricultural residents to have constructional skills as their second professional specialty. The use of local professionals' tacit knowledge to guide the participants during construction led to the increase of self-confidence and honor in the local professionals. Besides, by combining traditional and modern constructional methods, instead of using the simple construction system utilized in urban areas, the dependency on industrialized products in remote areas could be reduced.

Keywords: Design-build Programs, Humanitarian Architecture, Collaborative Construction, Tacit Knowledge, Asia-Pacific.

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[1]Graduate Institute of Architecture, National Chiao Tung University, Taiwan
[2]Graduate Institute of Architecture, National Chiao Tung University, Taiwan
*E-mail: clhuang@mail.knu.edu.tw

A New Structure of the Typhoon Bogus Wind Tangential Profile

Ms. Wu YunFan[1*], Gao Shanhong[2], Bian Xu[3]

Abstract Based on the Typhoon Bogus scheme proposed by the Air Force of Weather Agency (AFWA) typhoon Bogus scheme and Jonny CL et al. (1987) provided in the WRF (Weather Research and Forecasting) model, a Bogus scheme that can utilize 50 and 30 knots of wind speed radius information was constructed by Dr. Gao (2005). Dr. Gao's scheme was successfully planted to the WRF model and was improved in this paper. Typhoon No. 9 of 2011 called Muifa was selected as the research object. FNL (Final Operational Global Analysis) reanalysis data provided by the National Center for Environmental Prediction (NECP) was used as the WRF simulation background field, a series of numerical experiments was designed and implemented. The influence of the typhoon wind field structure on the path and intensity of the typhoon in the initial field was analyzed. Furthermore, attempting to improve the typhoon intensity forecast, 3DVar-DA assimilation of typhoon center pressure single point observations was used in the WRF model. The single-point center pressure assimilation was improved to the simultaneous multi-point assimilation on different vertical layers. Typhoon minimum pressure center location on each η-layer (1000 hPa, 900 hPa, 800 hPa, and 700 hPa) of the typhoon Muifa was simulated to the initial field. A series of numerical simulation susceptibility tests were designed and implemented. The result shows that the new Bogus scheme and simultaneous multi-point assimilation on different vertical layers of typhoon center was better.

Keywords: Thphoon, Numerical Simulation, Bogus

[1, 2, 3] National Marine Data and Information Service
*E-mail: yfwu910227@yahoo.com

An Ontology Development for Searching Community Enterprise in Lower North, Thailand

Jitaphat Chaisit[1*], Ladapa Pansuwan[2], Danuwat Isaranontakul[3], Pattamanan Isaranontakul[4], Krissana Romchaiyaphuek[5]

Abstract This research aimed to develop the ontology models on searching information about community enterprises in the lower northern, Thailand. The research focused on the demand of semantic information of enterprise goods for customers and tourists interesting in buying community enterprise products. The research desired to solve the problem of searching the customers' indirect object, who cannot find it from the only source. The research had structural design with Web Ontology Language (OWL) and created a query about SPARQL protocol, which can link effectively any data — the same content from multiple sources. The system can query the relevant information to customers based on their requirements. The customer satisfaction on ontological applications was in the levels of highest.

Keywords: Community Enterprise, Ontology Models

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[1, 2] Department of Management Science, Nakhon Sawan Rajabhat University
[3, 4]Department of Science and Technology, Nakhon Sawan Rajabhat University
[5]Department of Agricultural Technology and Industrial Technology,
Nakhon Sawan Rajabhat University
*Email: naricha.c@nsru.ac.th,

STEM integration in IoT projects

Dr. Rattanavalee Maisak[*]

Abstract Students are expected to be equipped for the 21st century, including critical thinking, problem-solving and the ability to bring innovation and competence to the IT sector, but the number of students studying science and technology has been at low level in many countries. With respect to the teaching of the information technology (IT) subject using modern techniques; this research aims to integrate STEM education and the Internet of Things (IoT) into regular lessons for IT undergrad students. The presented results show that the students benefit greatly from STEM, both in classroom and in IoT projects.

Keywords: **STEM, IoT, Students**

The Department of Information Technology, Rajamangala University of Technology Phra Nakhon
[*]Email: rattanavalee.m@rmutp.ac.th

TRACK C: MEDICAL MEDICINE AND HEALTH STUDY

Diabetes mellitus patients with general anesthesia are associated with an increased risk of surgical site infection after surgery compared to neuraxial anesthesia: A population-based study

Chun Jen Huang[*]

Abstract Diabetes mellitus (DM) is one crucial risk factor of surgical site infection (SSI). Previous data highlighted that anesthetic modes may exert significant impacts on the risk of SSI within 30 days after surgery. However, impacts of different anesthetic modes on SSI within 30 days after surgery in DM patients remain un-studied. To elucidate further, we thus conducted this population-based study using data from LHID2010, a database includes medical claims data and registration files for 1 million enrollees randomly selected from approximate 24 million registry for beneficiaries of Taiwan's National Health Insurance program. DM patients who had received general anesthesia (the GA group) or neuraxial anesthesia (i.e., spinal or epidural anesthesia; the NA group) for surgery between January 2000 and December 2012 were included. Patients with history of DM before anesthesia or age of less than 20 or more than 100 years were excluded. A total of 24829 DM patients (GA: 16889; NA: 7940) were included. Diagnosis of SSI was made based on 5 or 81 International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) codes. Our data revealed that the GA group had a significantly higher incidence of 30-day SSI than the NA group (5 ICD-9-CM codes: 2.5% vs. 1.8%, P=0.011; 81 ICD-9-CM codes: 3.5% vs. 3.0%, P=0.026). After controlling for the potential confounders, multivariate logistic regression analyses revealed that the risk of 30-day SSI in the GA group was significantly higher than in the NA group (5 ICD-9-CM codes; hazard ratio [HR]=1.70, 95% confidence intervals [CI]=1.38-2.10, P<0.001; 81 ICD-9-CM codes: HR=1.21, 95% CI=1.03-1.43, P=0.020). The trend remains the same after adjusting for the propensity scores. In conclusion, these data demonstrated that DM patients who had received general anesthesia for surgery were associated with an increased risk of SSI within 30 days after surgery compared to those who had received neuraxial anesthesia.

Keywords: Diabetes Mellitus, General Anesthesia, Neuraxial Anesthesia, Surgical Site Infection

Wan Fang Hospital, Taipei Medical University, Taiwan
[*]Email: huangcj1112@gmail.com

Diabetes mellitus is a strong predictor for post-surgical neuropathic pain: A population-based cohort study

Pei Shan Tsai[*]

Abstract Post-surgical neuropathic pain (PSNP) is observed in herniorrhaphy, mastectomy, amputation or coronary artery bypass grafting (CABG) patients. We elucidated PSNP risk factors using LHID2010, a database includes medical claims data and registration files for 1 million enrollees randomly selected from approximate 24 million registry for beneficiaries of Taiwan's National Health Insurance program. Patients undertook the surgery between January 2000 and December 2012 were included. Patients with a history of PSNP before surgery or age of less than 20 or more than 100 years were excluded. A total of 4647 patients (herniorrhaphy: 2564; mastectomy: 803; amputation: 902; CABG: 378) were included. Patients with at least two ambulatory visits for PSNP treatments were identified as the PSNP subjects. Patients without PSNP diagnosis were identified as the non-PSNP subjects. Subjects were tracked from surgery date until the end of 2013 or loss of follow-up. During 1-14 years of follow-up, PSNP incidence in patients undertook herniorrhaphy, mastectomy, amputation and CABG was 4.6%, 6.8%, 15.5% and 18.8%, respectively. After controlling for the potential confounders, multivariate logistic regression analyses revealed that diabetes mellitus was a strong risk factor of PNSP in patients undertook herniorrhaphy [odds ratio (OR)=30.71], mastectomy (OR=29.80), amputation (OR=54.62) and CABG (OR=209.62) (all P<0.001). In herniorrhaphy patients, PSNP risk factors also included hyperlipidemia, anxiety and use of anti-depressants and opioids (OR=1.81, 3.19, 2.35 and 1.78; all P<0.05). In mastectomy patients, risk factors also included hyperlipidemia, anxiety and use of anti-depressants (OR=3.84, 4.93 and 2.51; all P<0.05). In amputation patients, risk factors also included hyperlipidemia and use of non-steroid anti-inflammatory drugs and acetaminophen (OR=1.93, 12.49 and 13.05; all P<0.05). In CABG patients, risk factors also included hyperlipidemia, anxiety and use of anti-depressants (OR=6.06, 4.50 and 3.48; all P<0.05). Collectively, data from this population-based cohort study highlighted that diabetes mellitus is a strong predictor for PSNP.

Keywords: Neuropathic Pain, Surgery, Risk Factor, Diabetes Mellitus

Office of Global Engagement and College of Nursing, Taipei Medical University
Taiwan
[*]Email: ptsai@tmu.edu.tw

Scientific Board

Scientific Board for Business, Economics, Social Sciences and Humanities

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Upcoming Events

http://tarij.com/smbia-september-2018/

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http://tarij.com/crsma-november-2018/

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Venue

**Hotel Mystays Ochanomizu
Conference Center
Address:**

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