# 第五屆世界災難護理研討會

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## 中文摘要

題目:燒傷病人之重症照護:台灣八仙塵爆內外科加護病房的經驗

背景: 2015年6月27日台灣發生塵爆事件,將近500燒傷病人,是國家 重大災難事件。

目的:分享塵爆燒傷病人重症照護經驗。

方法:以病歷回溯性方式進行個案分析,8名入住42床內外科加護病房 燒傷病人,以誇團隊重症照護模式,其中包含維持灌流(輸液治療 及維持血流動力學);通氣(呼吸道保護措施及足夠氧合);感染(導 管護理及傷口照護);提供營養;鎮靜、復健及家庭支持。

**結果**:八位病人(5 名男性及 3 名女性);平均年齡 20.38 ± 5.58 歲 (12~32);平均燒傷面積 (TBSA) 68.30 ± 11.64%;平均嚴重度計分 23.12±4.42 分;平均插管天數 25.42±8.50 天;加護病房停留天數 49.88±20.03 天;1 人接受葉克膜治療及氣切。

結論:台灣扎實的重症照護提供病人良好及高品質照護,實貴的經驗能 提供重症照護重要參考指標。

關鍵詞:塵爆、燒傷、重症照護、內外科加護病房

## **5th Research Conference of WSDN**

**Title:** Critical Care of Burn Patients: Experience of Formosa Water Park Dust Explosion disaster in Medical and Surgical Intensive Care Unit

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#### **Abstract**

#### Background:

On 27 June 2015, a large dust explosion happened at a "Color Play Asia" party that was held at a recreational water park in New Taipei City, Taiwan. a mass casualty disaster occurred as fire erupted over a large crowd, injuring nearly 500 concert attendees. We shared our experiences in critical care in medical and surgical intensive care unit after a dust explosion.

#### **Methods:**

This was a retrospective study conducted in forty-two beds medical and surgical intensive care unit at tertiary medical center in Taiwan. Eight patients were admitted to our unit. We performed the emergency response management and multidisciplinary critical care, that included **P**erfusion (fluid resuscitation, maintain hemodynamic), **V**entilation (airway protect management, adequate oxygenation), **I**nfection (high quality catheter and wound care, efficacy antibiotic management, standard precaution, surgical intervention), **N**utrition (nutritional support), **S**edation (pain control, sedation protocol, mental support), **R**ehabilitation and **F**amily support.

#### **Results:**

Eight patient were five males and three females. The mean age was  $20.38 \pm 5.58$  years ( $12 \sim 32$  years), and the mean burn total body surface area (TBSA) of patients was  $68.30 \pm 11.64\%$ , all sustained third-degree burns. The average acute physiology and chronic health evaluation (APACHE) II score was  $23.12 \pm 4.42$ , the average intubation days was  $25.42 \pm 8.50$  days, mean ventilator days was  $29.60 \pm 14.39$ days, the average length of ICU stay was  $49.88 \pm 20.03$  days. the average length of hospital stay was  $141.25 \pm 65.09$ days( $64 \sim 277$  days). One patient received ECMO treatment (9 days) and one patient underwent tracheotomy.

#### **Conclusion:**

Taiwan's effective mass casualty preparation plans, highly trained medical and nursing personnel, and large centers capable of treating burn patients. Critical care play an important roles depends on interdisciplinary team cooperation, efficacy training program, and hospital incident command system.

**Keywords:** dust explosion, burn, disaster, intensive care unit, critical care

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地點: 德國布萊梅

報告人: 盧淑芬

主題:『Future Challenges for Global Disaster Risk Management-Evidence based Research and Powerful Competencies Needed for Nurses』

全球災害風險管理的未來挑戰-護理人員以實證為基礎及更強大的能力 首次參與不同以往的國際災難研討會,來自全球四大洲 19 個國家 170 位參與者共享盛會,會議於德國不萊梅市展開,台灣也展現實力參加人 員眾多,兩日的會議中,許多專家學者也分享了各國因應政策及案例, 如來自日本的 Hiroko Minami 學者也分享了 2015~2030 年先台災難概念 架構,並以七項目標及四個首要行動要點以降低災害風險包含(1)死亡人 數。(2)受災人數。(3)經濟損失。(4)重要基礎設施的損害。(5)減少災害 風險的國家數量策略。(6)國際合作。(7)早期獲得預警信息和改善災害風 險的機會。四項首要行動重點則為(1)了解災害風險。(2)加強災害風險管 理。(3)強化減災以提高妨禦能力。(4)加強備災工作,以便有效因應;並 在於復原及重建方面作的更好。



圖一 開幕前與會者合影

## 心得

此次與會將直升機落海溺水個案及八仙塵爆經驗與國際分享,回想起當時的情景,內心激昂又再次湧現,當時面對這些前所未有的重症燒傷病人,從重症照護、人員調度、資源分配、衛材管理、團隊整合及家屬支持,單位甚至院方皆全體動員共同面對危機及挑戰,每個過程對我們而言都是學習及不同的歷練,有歡笑、痛苦、驕傲跟淚水,最重要的是病人的恢復及重生;災難無法預期也不能預測,重要的是面對災難的應變及態度,塵爆的成功經驗靠的平日的養成、人員扎實的訓練、標準程序地執行與運

作,一步一腳印,無法一蹴即成的,藉由國際研討會除在國際發揚光大, 也能藉此學習國際間對於不同模式災難得處理及應變。同時也感謝長官 及學會的支持推動下,與國際接軌機會及能見度大增,個人也應增進論文 發表技巧及英文能力,以求於國際舞台有優良表現應最後在災難相關的 議題目前應該可以有更多的研究,包含相關資料分析的量性研究以及護 理照護者或是個案本身經驗之質性研究等。



圖二 作者與發表論文合影