

[OP077] MANAGEMENT OF BURN INJURIES: A TEN YEAR REVIEW

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Free Paper Session: Burns, Home Care, Pain and Quality of Life

Aim: To document the clinical and epidemiological features and the outcome of management of patients with burn injuries treated from January 2003 to December 2012.

Method: Data on all burn patients managed within the period were retrieved from the records of the Burns Intensive Care Unit (BICU), theatre records, and Surgical Outpatient Department (SOPD) and analyzed.

Results / Discussion: 1361 patients were treated for burn injuries from January 2003 to December 2012, comprising 707 males.

Their ages ranged from 0.25 to 92 years, with mean age of 15.5 (SD 14.1) years, and median of 11.9.

77% of the patients were aged 20 years or less; 45% comprised children aged 10 years or younger.

The highest annual admission was 172 patients in 2005; the lowest was 104 in 2007.

Scalds comprised 60% of the injuries. Dry heat was responsible for 37% of the burn injuries. Chemical burns comprised 28 (2%) of the burn injuries and led to loss of vision in two cases and one death.

Electrical burns comprised 12 (0.9%) of the cases and led to three deaths and 6 limb amputations.

162 patients died of burn injuries; giving a mortality of 11.9% overall. The highest annual mortality of 32 (29%) occurred in 2008. Peri-operative mortality occurred in four epileptics; nine others underwent limb amputations.

Conclusion: Injuries from hot liquids account for most admissions for burns. Significant morbidity and mortality result from dry heat. Electrical burns as occupational hazard, chemical burns as weapons of assault and epilepsy as a predisposing medical condition are increasingly becoming responsible for major burn morbidity.

[OP081] COMPARISON OF SELECTIVE DEBRIDEMENT METHODS EFFICIENCIES FOR TREATMENT OF THE FOREARM AND HAND DEEP DERMAL BURNS

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Aim: Comparison of selective debridement methods efficiencies for treatment of the forearm and hand deep dermal burns.

Method: We represent randomized, controlled, single-blind, parallel-group clinical trial designed to compare enzymatic, mechanical and autolytic debridement methods for treatment of the forearm and hand deep dermal burns. Patients were selected using clinical burn investigation and Laser Doppler imaging (LDI) and randomized into four groups. LDI burn wound healing prediction of no more than three weeks was the obligatory factor to access the study. For the first (control) group we used standard treatment - dressings with silver sulfadiazine cream. The second patients group got for the burn treatment hydrocolloid dressings which promote autolytic debridement. The third patients group got treatment combination - dressings with silver sulfadiazine cream and mechanical debridement with special single-use pad of monofilament polyester fibers. The fourth group was treated with enzymatic dressings. Study lasted three weeks for each patient till total burn wound epithelization happened; alternatively split thickness grafting was performed.

Results / Discussion: The highest speed of burn wound epithelialization was observed in the second group of patients (hydrocolloid dressings) $17.3 \pm 2,8$ days. No bacterial contamination and infection symptoms were detected in all groups after 7 days treatment. During mechanical debridement procedure with the monofilament polyester fibers pad massive capillary bleeding and increased burn wound pain (VAS: 4.8 points) after redressing was detected.

Conclusion: Hydrocolloid dressing seems to be an effective instrument for selective debridement and treatment of of the forearm and hand deep dermal burns with LDI healing prediction less than three weeks.

[OP084] TREATMENT OF THE PATIENTS WITH ELECTRICAL BURNS

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Aim: In general, the structure of burns frequency electrical burns is 1-3% and has not significantly changed for the last 20-25 years.

The aim of the investigation was to improve the results of the surgical treatment of the patients with deep electrical burns.

Method: We have analysed the results of treatment of 28 patients with electrical burns 3 degrees (ICD-10). The area of the deep burns was 5-9% of the body surface. Localization of the burn wounds was: the head - 7 patients (25%), upper -16 (57%) and lower - 5 (18%) limbs. Victims of the first group were 20 (71%) of patients admitted to the clinic after 1-3 hours after injury, and of the second group - 8 (29%) patients transferred from other medical institutions after 6-8 days post burn.

We have used two main types of approaches for treatment of burns.

The first one include the early surgical treatment. On the first stage, the estimation of the type and dimension of the necessary procedures is essential one. The surgical excision of the burn eschar, which is provided at the early period after trauma (up to 4 days after injury) and following grafting of the wounds by split-thickness skin grafts or by complex flaps (skin and fat, skin and facial trauma, skin and muscle and other). The second stage of the treatment include the debridement of the wounds rehabilitation how aggressively to debride, conservative treatment of wounds (wound treatment solution polihexanide, application of dressings with gel polihexanide) with the purpose of formation of granulation tissue and subsequent skin grafting.

Results / Discussion: The victims of the first group (n=20) within 4 days after burn done early how aggressively to debride the soft tissues, osteonecrosis (amputation) with simultaneous or delayed skin grafting. The treatment time was 30 to 35 days.

Patients of group II (n=8) noted marked infectious inflammation in the wound, forming the line of demarcation and starting the rejection of necrotic tissue. Conducted a landmark rehabilitation how aggressively to debride with ultrasonic cavitation and conservative treatment of wounds with subsequent rapid recovery of the skin. The treatment time was 50-60 days.

Conclusion: Tactics of early surgical treatment was possible to obtain good clinical results, to reduce the treatment time affected and begin their rehabilitation.

[OP076] THE PREVALENCE AND RESOURCE IMPACT OF WOUNDS WITHIN AN URBAN AREA OF IRELAND

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Free Paper Session: Burns, Home Care, Pain and Quality of Life

Aim: The aim of this study is to explore the prevalence and resource impact of wounds within an urban setting in Ireland. Objectives are to:

- Estimate the prevalence of all wounds within one urban setting in Ireland
- Determine the resource impact of wounds within one urban setting in Ireland
- Make recommendations for practice based on the findings of the study

Method: This study employed a cross-sectional survey design, using a pre-designed, validated data collection instrument*. Data was collected by the listed co investigators, using the data collection instrument, for all individuals with a wound, over one week period in November 2013.

Results / Discussion: Data were analysed using SPSS. Point prevalence was 3.7% (n=445) with surgical wounds the most prevalent 42.7% (n=190). Other wound types included leg ulcers 18.9% (n=84), pressure ulcers 10.3% (n=46), diabetic foot ulcers 5.2%, others 13.2% (n=102). Most patients had one wound 67.6% (n=301) however one patient 0.2% had eleven wounds recorded. Most patients had acute surgical wounds present less than a week 22% (n=98) but some chronic wounds were present greater than five years 8.5% (n=38). Dressing times varied from 10 minutes 20% (n=92) to an hour 1.2% (n=5). Most dressings were changed 3 times a week 28.5% (n=127) but 5.8% (n=26) and 10% (n=45) were changed daily or alternate days which can have a huge impact on resources such as dressings and nurse time. The most common types of primary dressings used were Iodine 12.8% (n=57) and Hydrofibre 9% (n=40) although it was interesting to see silver and iodine were applied despite the fact that 80% (n=356) were reported as non-infective wounds. Of the 23 Diabetic foot ulcers only 11 (n=47.8%) were offloaded. Furthermore, of the 46 Pressure ulcers 14.2% (n=7) had no pressure redistribution device in the bed or chair.

Conclusion: This study set out to explore the prevalence and resource impact of wounds within an urban setting in Ireland. Such information will enable health planners to ensure appropriate allocation of resources.

*Vowden et al. 2009

[OP078] SUPPORTED SELF-CARE OF PATIENTS WITH CHRONIC WOUNDS: MYTH OR REALITY?

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Free Paper Session: Burns, Home Care, Pain and Quality of Life

Aim: The NHS has promoted patient engagement in the management of chronic conditions, such as diabetes. However, there has been little consideration of the role of the patient in the management of chronic wounds. The Hull City Health Care Partnership (CHCP) established a programme designed to promote *supported self-care* of chronic wounds. Patients are screened to determine whether they can engage in supported self-care. Eligible patients are provided with information, dressings for a 7-day period and receive one nurse visit per week to monitor their status. Patients have access to a telephone consultation with a nurse at any time. Analysis of patient records was undertaken to determine the impact of supported self-care.

Method: Patient records were analysed to determine the uptake of supported self-care amongst patients with a chronic wound. Data were available for 2012, 2013 and the first quarter of 2014.

Results / Discussion: The proportion of patients participating in supported self-care increased from 18% in 2012, to 20% in 2013 and 24% in 2014. During this time, the CHCP has seen an increase in the number of wound care patients referred to it but a decrease in the number of follow-up visits. The mean number of follow-up visits/patient/month decreased from 2.2 in 2012 to 2.0 in 2013 to 1.8 in 2014.

Conclusion: Findings from CHCP suggest that supported self-care is feasible for a significant proportion of patients with chronic wounds. This has resulted in a decrease in the number of nurse visits per patient per month. This is critical to the community nursing service which is experiencing increased referrals but no incremental staff resource.

[OP082] PREVALENCE OF WOUND RELATED NEUROPATHIC PAIN IN A PRIMARY HEALTH CARE SETTING: A SINGLE SITE DESCRIPTIVE PILOT STUDY

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Free Paper Session: Burns, Home Care, Pain and Quality of Life

Aim: To identify the presence, quality / quantity of wound related pain (WRP) and describe the proportion of adults who screen positive for neuropathic pain (NeP) vs non neuropathic pain (non NeP) in this setting.

Method: A descriptive survey, using a generic demographic questionnaire (including a numerical rating scale (NRS), an internationally endorsed WRP assessment tool and a validated screening tool* for NeP), was undertaken. The validated screening tool* for NeP was only completed if WRP reported.

Results / Discussion: 29 participants enrolled with a mean age of 77.5 (range 53 to 100). 96.5% (28/29) of wounds were located on the lower limb, with a mean duration of 12.2 weeks (range 1-112). 90% (26/29) reported WRP with a mean 'worst' severity score of 5.6 out of 10. 3/26 (12%) with WRP screened positively for NeP using the validated screening tool* recording a mean pain severity score of 9.7/10 compared to 5/10 for non NeP (n=23). Background WRP was reported by 3/3 with NeP and 2/3 reported procedural and post procedural pain. A mean total of 9.3/11 descriptors (gnawing, aching, throbbing, tender, sharp, crawling, burning, stinging, shooting, tingling and stabbing) were reported with NeP. When compared to non NeP, a mean of 2.8 descriptors were used.

Conclusion: In this pilot, WRP was a common symptom of older persons presenting with lower limb wounds. For those with NeP characteristics, pain severity scores were higher, pain timing more frequent and descriptors for 'mixed' pain (both NeP and non NeP) were reported. Routine screening for WRP including NeP, could improve clinicians understanding of WRP types and guide preventative and management interventions.

*Douleur Neuropathique en 4 Questions – the DN4

[OP080] EXPLORING THE ROLE OF TISSUE VIABILITY NURSE - PROMOTING QUALITY OF LIFE FOR PATIENTS

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Free Paper Session: Burns, Home Care, Pain and Quality of Life

Aim: To explore the role of the tissue viability nurse (TVN) specialist and to identify key responsibilities of the TVN role in the United Kingdom.

Method: Mixed methodology using questionnaires distributed via survey monkey and semi structured interviews. Inclusion criteria was any nurse or healthcare professional who cared for wounds, was involved in tissue viability and agreed to be involved in the research. Ethical approval was received for the study.

Results / Discussion: Survey results were obtained from 261 respondents. 80% of respondents were either community or Acute based and 62% employed in a Tissue Viability Nurse Role. There was diversity in titles used for the role and significant difference between TVNs and non-TVNs regarding identified key functions of the role. Experience was valued more than academic qualification by TVNs and academic qualifications more than experience by non-TVNs. Tissue viability nurses are expected to lead and manage services that are cost effective, evidence based and which maintain health related quality of life outcomes. However it still remains a 'Cinderella' service. It is clear from the literature that there are no clear nationally or internationally agreed standards, direction or set of key performance indicators that define a successful service.

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[OP083] A PHENOMENOLOGICAL INVESTIGATION INTO THE “THE JOURNEY” OF PATIENTS WITH CANCER SUFFERING FROM FUNGATING WOUNDS

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Free Paper Session: Burns, Home Care, Pain and Quality of Life

Aim: The aim of the study was to explore the lived experiences of patients with cancer, suffering from fungating wounds.

Method: A Husserlian phenomenological approach was adopted to explore the subject from patient’s perspective. In depth semi-structured interviews were carried out.

All interviews were recorded and transcribed verbatim onto paper. Data analysis was carried out using “the conceptual framework”.

Results / Discussion: Fourteen patients were interviewed. Patients described the growing wound as - “It starts small and gets bigger and bigger”, representing an abnormality that could not be controlled or predicted. There is a gap from the moment when the rash or wound appeared, up to the specific point when it dawned on one that the wound and the cancer were linked. The chronic nature of the wound revealed itself over time when the wounds did not appear to be healing causing the patients to become disheartened. There was a distinct wish to avoid seeing the wound and eventually to estrange oneself from one's body. The boundaries of what was inside or outside the body went askew.

Functional limitations and pain were the most frequent issues reported by the patients. Smell, for those who experienced it, was a source of fear and anxiety and bleeding was a source of worry.

Conclusion: The growing of the wounds and wound deterioration as reported by the patients sheds light on wound trajectory and the need to better inform and support the patients from start of the long journey.

[OP079] THE EFFECTS OF PREVENTIVE NPWT ON WOUND SCARRING AND QUALITY OF LIFE IN PATIENTS WITH PRIMARY WOUND CLOSURE – A PERSPECTIVE FROM A GENERAL SURGERY UNIT

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Free Paper Session: Burns, Home Care, Pain and Quality of Life

Aim: Preventive Negative Pressure Wound Therapy (NPWT) is effective in reducing surgical site events (SSE), but little is known concerning patient satisfaction and quality of life (QoL). Our aim was to investigate the effects of preventive NPWT with PICO on wound-scarring and QoL.

Method: This prospective, non randomised, cohort study, enrolled patients undergoing general surgery at our department between September 2013 and May 2014. After surgery with primary wound closure, patients received either PICO or conventional dressings. We planned evaluation of 25 patients per group. Predicting a 5% detrimental effect, we planned inclusion of 52 patients. Patients filled the Short-Form36 questionnaire (SF-36) at discharge and six months later. Wound-healing was assessed by Patient-and-Observer Scar Assessment Scale (POSAS) six months after surgery by a blind trainee-surgeon, and patients graded satisfaction on a 10cm Visual Analogue Scale (VAS, 0 poor–10 best).

Results / Discussion: Fifty-three patients (mean age 48±11years, 24 male) agreed to participate. PICO patients had significantly lower POSAS (28±9 vs 20±5, p=0.002) and higher VAS scores (7.9±2 vs 6.3±2, p=0.03 – PICO vs controls). QoL at discharge did not differ between groups, whereas NPWT patients had significantly higher "Social" (89±18 vs 73±20, p<0.001) and "Physical Function" (83±23 vs 78±19, p=0.03) and "Role Emotional" (85±15 vs 73±19, p=0.02) at 6-month follow-up. SSE were more frequently observed in controls. Receiving NPWT did not impair perceived QoL in the short-term. In the long-term, PICO may improve QoL as a result of better wound-healing and reduced rates of SSE.

Conclusion: NPWT with PICO is well-accepted and improves long-term QoL. This can be explained with an improved quality of wound-healing and reduced SSE.