EVOLUTION OF BURNS EPIDEMIOLOGY IN A TROPICAL REGIONAL BURNS CENTRE (023)

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Background: Singapore General Hospital (SGH) is a regional burns centre and is the only dedicated burns facility in Singapore. Our study analyses the epidemiological data of all burns admissions to SGH from 2011 to 2013. We compared our data with our earlier study and observed the evolution of burns epidemiology in Singapore.

Methods: A prospective cohort study was performed for 652 burns patients admitted to SGH from 2011 to 2013. Results were analyzed using the two-sample t-test, Mann-Whitney U test, Kruskal-Wallis test, Jonckheere-Terpstra test and Chi-squared test in the SPSS programme.

Results: 652 patients were admitted during this study period, a 35% increase from 2003 to 2005.

As a regional burns centre, 10% (62) of our patients were transferred from overseas and 15% (98) were transferred from other local hospitals.

The median time from injury to surgery has decreased from 5 to 3 days. 61% (402) of all our burns admissions required surgery intervention.

We have significantly shortened our average hospital length of stay by 40% (from a mean of 26.2 to 17.7 days).

4.9% of our patients developed septicemia. Septicemia was associated with larger burns and long operations. Early surgery within 2 days from injury was found to reduce the risk of sepsis. Patients with sepsis incurred longer hospitalization stay (56.7 days compared to 10.3 days in patients without sepsis), and had higher mortality rates.

Finally, overall mortality rate of our burns patients has decreased from 4.5% to 2.7%. Key factors of mortality include inhalational injury, septicemia and burns with ≥20% total body surface area.

Conclusion: This is a large epidemiology study of a tropical tertiary burns centre. A total of 652 burns cases were analyzed over a 2-year period. We analysed the key factors and impact of septicemia in burns patients and discussed strategies on the optimization of burns care.