KISS and SWELL

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It is widely recognised that burn related immunosuppression can result in the infection of facial burns which in turn leads to prolonged healing and an increase in adverse outcomes (Wurzer et al: 2017). Herpes Simplex Virus, (HSV), is one such infection, and one that poses a difficult diagnosis with Herpes viruses displaying clinical features involving skin loss that can mimic the initial burn injury (Crowley: 2017). Studies suggest reactivation rates of latent HSV in facial burn injury patients being around 25% (Haik et al: 2011), whilst also recognising the possibility of primary HSV infection within this population (McGill: 2000). The following case study discusses one such primary HSV infection which prompted a change in screening practices with the Royal Hobart Hospital (RHH), and poses the question what education should be provided to reduce infection rates of HSV within our facial burn population.

Case Study

A 15 year old male presented to his local community hospital with superficial dermal flame burns to his hands and face, resulting from an aerosol can exploding in a campfire. He was cleared of any airway and eye involvement and treated post cooling with hydrocolloid dressings to his hands, with QID cleansing and paraffin application to his face, Chlorsig to his nares and lanolin to his lips. He was advised to shave daily and commence facial exercises. He was screened for HSV and reported no history or symptoms of the same.

Representing for a planned review 3 days later he showed good evidence of healing to all areas. Treatment was left unchanged.

One week post injury, he represented febrile with tachycardia, general malaise and increased erythema to face and hands. Blood cultures were negative but wound swabs to his hands showed heavy growth of Staph Aureus . IV Flucloxacillin was commenced as per advice from RHH. Hands were dressed with Acticoat and facial care kept unchanged. It was reported that the client was noncompliant with facial care frequency, attending this only 1-2 times / day.

By day 10 post injury pustules were reported as appearing on the client's forehead with serous exudate from all facial burns. RHH requested viral and fungal swabs , although it appears that these were not taken. The patient was again screened for HSV, and again reported no history or symptoms, however did report that he was maintaining intimate contact with someone whom did suffer from cold sores. Education re HSV transmission and avoidance was provided to the client at this time.

The patient was discharged the following day with community nursing referral for bi weekly dressing changes to his hands and telehealth follow up by the burns unit RHH.

A telehealth review 3 days post discharge (15/7 post injury), showed significant facial skin loss and blistering and oral Acyclovir was prescribed. Further follow up was scheduled with the burns unit via telehealth however the client has failed to attend.

1/52 post injury, readmission

15/7 post injury, antivirals commenced

Discussion / Lessons Learnt

The involvement of HSV in wound healing has outcomes ranging from pain and scaring to disseminated infection (Roberts et al: 2013). It is widely documented that early intervention and treatment of infection is a *'key component in reducing morbidity and improving the long term outcome of burn victims'* (Wurzer et al: 2017).

Despite HSV screening and strong suspicion that wound breakdown was caused by viral infection with the same, treatment was not commenced until day 15 post injury. Speculation can also be raised as to whether the client understood the provided education re HSV transmission or chose to ignore the advice.

Conclusion

In order for HSV to be transmitted there must be contact between a virus shedding person and a susceptible host (Wurzer, et al: 2017)

Education around the prevention of HSV in the general population is based around contact precautions with actively infected persons advised to refrain from kissing, oral sexual conduct, and sharing of sharing eating and drinking implements, towels, lip balms and razors (Neville: 1991)

Increasing awareness of HSV and suspicion levels of infection, both within burns patients and burns staff can help prompt timely diagnosis and treatment thus aiming to alleviate late complications (Haik et al:2011)

In an effort to increase awareness RHH now screens all facial burns patients on first presentation for known HSV infection or past history of symptoms. This has been achieved by the inclusion of the same in both the facial burns care chart and patient information handouts.

References

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