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Introduction

Cellulitis in adults is a common medical condition taking up a large number of occupied bed days in Acute hospitals. In 1985 in the UK, skin and subcutaneous tissue infections resulted in 29,820 hospital admissions and a mean occupancy of 664 hospital beds each day. One survey concluded that it accounted for around 3% of emergency medical consultations at a UK district general hospital. Consequently, it represents an important healthcare issue with substantial resource and financial implications for the majority of acute trusts. In Northern Ireland in 2003, there were 2,081 admissions with a discharge diagnosis of cellulitis and an average length of stay of 11 days. (CREST 2005)

Cellulitis is an infection of the deeper layers of the skin and the underlying tissue. Cellulitis can have a wide range of causes, but the majority of cases are caused by a type of bacteria called Group A streptococcus or staphylococcus aureus. The main symptom of cellulitis is the affected area of skin suddenly turning red, painful swollen and hot (Consensus Guidelines VKL 2010). It most often affects the legs, but can occur anywhere on the body.

This case study examines a typical presentation of cellulitis and subsequent treatment. T was a 52 year old lady with no past medical history apart from an Under Active Thyroid who became suddenly unwell with acute flu like symptoms and a swollen painful foot. She presented at the local A&E department on 22nd May 2014 where she was found to have a temperature of 38, CRP of 516.8 mg/L (range 0.1-5), WCC19 (range 4-11) and a red painful foot which was diagnosed as cellulitis. She was commenced on IV Cephalexin for administration by nursing rapid response team at home. On 23rd May she returned to A&E with increasing pain and sepsis with the infection tracking up her leg onto her thigh and breakdown of the skin on the calf area. T 37.5, Heart Rate 133. Antibiotic therapy changed to IV Flucloxacillin and Benzylpenicillin. On 27th May, T was referred to the tissue viability nurse for advice on the management of her right leg which had oedema, extensive bruising, blistering and skin breaks and a pain score of 9/10 with 10 being the most painful.

Method

Mepitel was applied to cover all blistered areas and was secured with Tubifast Yellow Line Stockinet and a Wool and Crepe Bandage applied loosely toe to knee. This was to be reapplied daily. On 30th May, T was feeling much better CRP 55, WCC11 microbiologist advised change of antibiotic to oral Co-Amoxiclav.

- Reviewed by TVN 30th May (photographs taken- Fig.1) leg less inflamed, still marked bruising and blistering with copious bright green exudate suggestive of Pseudomonas, pain score still 9/10. Dressing regime continued with the addition of an Eclypse Boot to manage the exudate.
- A Duplex Scan was requested by the TVN to check arterial blood flow to foot.
- Recommended on IV antibiotics as before for a further 7 days at which point she developed widespread rash and itch which was presumed to be due to the antibiotics. T therefore the patient was prescribed Chlorphenamine 4mg PRN and Hydrocortisone 1% to skin and the antibiotics changed Clindamycin.
- Blood Cultures to lab CRP up to 101 WCC 8.

Reviewed by TVN 6th June when leg was less painful, blisters beginning to dry, less erythema but widespread skin loss. As the results of Duplex scan were satisfactory the decision was to commence compression therapy in an attempt to reduce the oedema and heal the widespread skin breaks. In view of the skin destruction, Aspen CoFlex UBZ was the system of choice as previous experiences had shown the positive effect it had on damaged skin. The bandage system was applied toe to knee at reduced pressure initially. Reviewed by TVN again on 9th June, changed back to oral Clindamycin for a further 2 weeks, up sitting and mobilising for short distances. 10th June T was discharged home 4 days after zinc based compression (Fig 3 and 4) for renewal of bandages every third day in community. Visited on 25th June in the community by the TVN. Leg healed (photographs taken) the decision was made to continue with bandage system for a further two weeks when she would be measured for and fitted with a Varicase Class 1 below knee compression stocking which she was advised to wear for at least 6 months.

Results/ Discussion

The wounds healed at an astonishing rate, granulation tissue was evident after first bandage change. As is evident from the final photograph the skin has healed very well with an excellent cosmetic outcome. T found the bandage system very cooling and soothing on the broken skin. Ease of application and removal also reduced her anxiety and pain.



Fig 1. 30.5.2014



Fig 2. 30.5.2014



Fig 3. 25.6.2014. 3 Weeks after zinc based compression



Fig 4. 25.6.2014

Conclusion

At the outset it was felt that it could take several months to heal this leg which meant ongoing pain and discomfort, and indeed further infection and time off work for the patient, fortunately this was not the case. The use of CoFlex UBZ bandage in the management of this cellulitic limb was a very positive experience for both patient and health care practitioners.

References

- 1). CREST: GUIDELINES ON THE MANAGEMENT OF CELLULITIS IN ADULTS. June 2005