THE USE OF A HYDROFIBRE DRESSING (AQUACEL) IN FULMINATING NECROTIZING FASCIITIS OF THE LOWER ABDOMEN, INGUINAL REGION AND SCROTUM: A CASE STUDY.

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Introduction
A case of Necrotising Fasciitis is described in a previously undiagnosed diabetic 52 year old male. This required massive debridement and subsequent dressing of the open surgical wound. A modern Hydrofibre dressing (Aquacel™) was inserted intra-operatively and subsequently continued post-operatively. The dressing performed excellently, was well tolerated by the patient and easy for the nurses to handle. Wound healing occurred over three months and the patient was discharged with no disability.

Clinical Features
A 52 year old male railway worker was admitted as an emergency to the Medical Department of this Hospital with newly diagnosed diabetic ketoacidosis. He was noted to have a swollen tender left scrotum and a surgical opinion was requested. He was seen by a Surgical Registrar and a diagnosis of incarcerated left inguinal hernia was made. Over the next 24 hours his scrotum became tender so he was taken to the operating theatre with the intention to repair his hernia. On opening the skin In the groin a large amount of pus was encountered but no hernia. Senior Surgical help was sought. The wound was extended to reveal necrotic, gangrenous subcutaneous tissue. A full surgical debridement of skin and subcutaneous tissue extending from the left lower abdominal wall through the left inguinal area and continued to include the whole of the left scrotum was performed. The testicular vessels and left testicle were viable and were preserved.

The huge open wound was dressed with a primary dressing of 6 sheets of 10 cm x 10 cm of a Hydrofibre dressing (Aquacel) to cover all the exposed area. A secondary dressing of absorbent gauze was then applied. The dressing was left in situ and the wound inspected at 48 hours. No further debridement was necessary so the wound was redressed in a similar fashion on a regular basis in the post-operative period. By 7 days the patient's diabetes was stable, he was pain free and commencing to mobilise. The wound was clean and starting to close. Healing took place steadily without infection. The patient continued to mobilise. Full healing took place in 3 months with no disability.

Clinical Challenge for the Doctor
- Correct diagnosis
- Active resuscitation
- Radical surgical debridement
- Broad spectrum antibiotics

Clinical Challenge for the Nurse
- Choice of dressing
- Dressing performance
- Early mobilisation
- Adequate analgesia
- Maintain nutrition
- Return to normal activity
- Choice of dressing
- Dressing performance
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- Maintain nutrition
- Return to normal activity

Discussion
Necrotising Fasciitis or Fournier's gangrene of the genital and inguinal region was named after Jean Alfred Fournier in 1883(1). However the condition was first described over 100 years previously by Barriere in 1764 (2). This disease process may affect other areas as recognised by Meloney and others (3, 4). Most patients also have an underlying systemic disorder e.g Diabetics, Alcoholism or Immunosuppression such as: HIV infection.

It is a fulminating life threatening disorder with reported death rates of up to 75% (5). The central principles of management are aggressive haemodynamic stabilisation, broad spectrum antibiotics and urgent radical surgical debridement. Once this has been done the patient is left with a large open defect left to heal by secondary intention. The patient now faces a prolonged period until the defect closes and healing takes place. At this point the emphasis of care passes from the surgeon to the nurse who will provide continuing care for the patient. It is important for the patient that the correct dressing is chosen to provide optimum conditions for wound healing and allow maximum patient comfort so that they can be pain free and mobile during their convalescence.

From our experience in this Unit, we know that a modern Hydrofibre dressing (Aquacel) performs significantly better than traditional dressings in acute surgical wounds (6,7). For this reason we chose to use this dressing in this patient who had a massive skin defect in his scrotal and inguinal area. This choice of dressing proved a great success as it was pain free in situ and at dressing change, provided an optimum moist wound healing environment and coped with exudate. As a result the patient was able to be mobile and independent by one week post-operatively. An additional benefit of the Hydrofibre dressing is that bacteria bind to the fibre of the dressing possibly reducing the chances of secondary infection(8). Over the next 3 months the wound healed and the patient was discharged with no disability.

Conclusion
A case of Necrotising fasciitis of the scrotal and inguinal area successfully managed by post-operative wound dressing with a Hydrofibre dressing (Aquacel). In Necrotising Fasciitis it is important that the correct choice of wound dressing is made in addition to radical surgical debridement and resuscitation for satisfactory long term outcome.

REFERENCES

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