

Case Report

Necrotising Fasciitis

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NovoSorb®
BTM
Biodegradable
Temporising Matrix

The radical surgical debridement of infected tissue exposed deep structures and created a large complex wound for reconstruction.

The patient presented in a critical condition and was diagnosed with necrotising fasciitis. The radical debridement of the anterior neck and chest created a large and complex wound with exposed structures. NovoSorb® BTM was chosen to achieve coverage of the large defect and structures to provide contour and mobility. The reconstruction resulted in the patient maintaining a nearly full range of motion of the neck. He was able to return to work three months after the incident.



Figure 1: Initial presentation of patient with Necrotising Fasciitis.

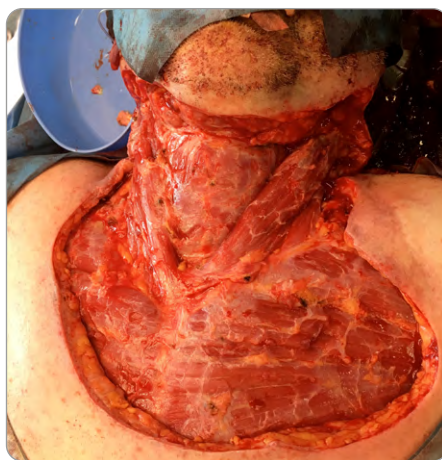


Figure 2: Large complex wound, after first debridement of the anterior neck and upper chest.



Figure 3: Day 24 after BTM application and integrating well.

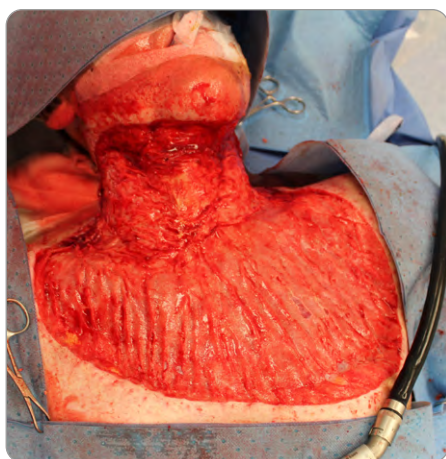


Figure 4: Exposed neodermis; after BTM delamination on Day 31 and refreshed with dermabrasion.



Figure 5: 3 months post skin grafting. Sharp corner at wound edge indicates limited wound contraction.



Figure 6: 3 months post grafting. Near full range of neck motion demonstrated.

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Background

A 46-year-old Caucasian male presented to the Emergency Department after feeling unwell for one week with flu-like symptoms. Necrotising Fasciitis was diagnosed (Fig. 1). The patient had no pre-existing comorbidities.

Treatment

The patient was immediately brought into the operating theatre for radical debridement. After debridement, there was significant soft tissue loss of the anterior neck and upper chest, exposed sternocleidomastoids, carotid sheaths, and submandibular glands (Fig. 2).

Alternative options considered to close the large complex wound included a biological dermal template or a free anterolateral thigh flap with a split-thickness skin graft. BTM was chosen as an alternative to cover the neck's complex and deep structures while providing an improved contour and uniformity of texture compared to primary split skin graft reconstruction.

Six days after the initial debridement, the patient returned to theatre for the application of BTM. Prior to application, the factory-fenestrated BTM seal was further fenestrated with a scalpel blade to assist with the egress of wound exudate into the dressings. BTM was applied with quilting staples to secure and contour BTM to the wound bed. The dressings consisted of an antimicrobial silver and an overlying adhesive dressing. Dressing changes occurred twice a week, cleaning BTM using 1% chlorhexidine-impregnated sponges. The patient was discharged at 2 weeks with further dressing changes as an outpatient (Fig. 3).

At day 31 post BTM application, the patient returned to theatre for definitive closure. The sealing membrane was delaminated, and then the surface was refreshed with light dermabrasion to remove surface biofilm and granulations and encourage light capillary bleeding (Fig. 4). A split-thickness skin graft was harvested, hand fenestrated, and secured with staples as a sheet graft.

Outcome

The graft took successfully with no further procedures required. At 3 months, the patient had minimal wound contracture (Fig. 5) and nearly full range of motion of the neck (Fig. 6). Three months after the initial incident, the patient returned to work. At the 9-month follow-up, the patient continued to maintain work, family, and social activities.

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NovoSorb BTM is designed to temporise the wound and facilitate the construction of a vascularised neodermis, ready for definitive closure. NovoSorb BTM is indicated for full or deep partial thickness burns and wounds, surgical and reconstructive wounds and traumatic wounds. For full device details, including indications, contraindications, warnings and precautions, refer to the Instructions For Use, available at polynovo.com

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