

# NEWS

## **In vivo study: Reduced wound tissue disruption with SILVERCEL® NON-ADHERENT**

In an in-vivo study on porcine exudating partial-thickness wounds, SILVERCEL® NON-ADHERENT was compared with Aquacel Ag.

Each dressing was compared in 8 replicate wounds . The wounds were secondarily dressed with an adhesive film dressing, and a protective gauze pad. Dressings and wound sites were assessed at days 2, 4 and 7, and the wound sites were harvested at day 7 for histological assessment.

On day 2 the Aquacel Ag dressing's structure was lost and assessed as difficult to remove in its entirety, leaving high levels of debris. On day 4 the Aquacel dressing formed a sticky gel and was again difficult to remove. On day 7 the Aquacel Ag dressing fibres dried into wound surface, requiring careful removal.

The SILVERCEL® NON-ADHERENT dressing retained its structure on day 2 and was lifted off easily in its entirety. Also in days 4 and 7 SILVERCEL® NON-ADHERENT 's structure was retained throughout, and even in less hydrated conditions there was no adherence or fibre incorporation into the wounds - enabling rapid and clean removal .

After final dressing removal on day 7 there was significantly more:

- dressing debris in wounds treated with Aquacel Ag (p<0.001)
- foreign body reactions in Aquacel Ag treated wounds (p=0.007)
- tissue disruption in wounds treated with Aquacel Ag (p<0.001)

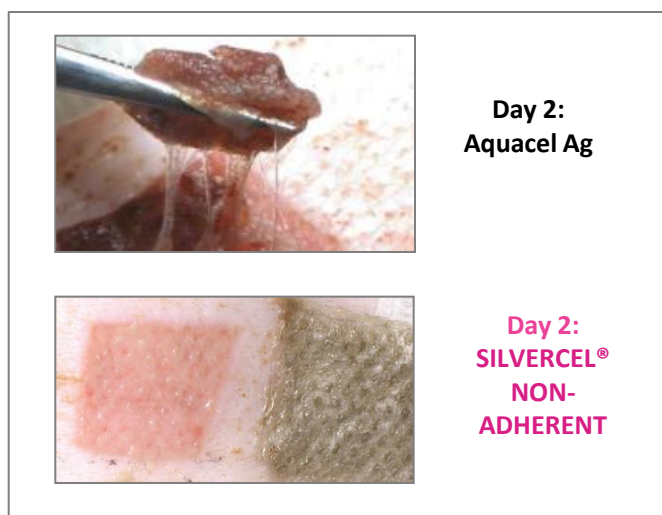


Fig 1: Dressing removal



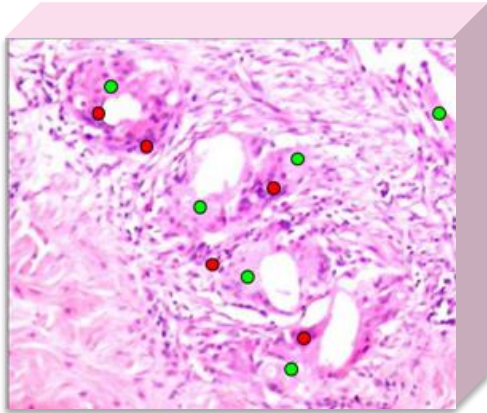
Fig 2: Wounds after saline cleaning

### Histological Assessment

#### Aquacel Ag

Caused substantial debris entrapment, tissue reactions and tissue disruption

- Dressing Derived Debris
- Foreign Body Reactions

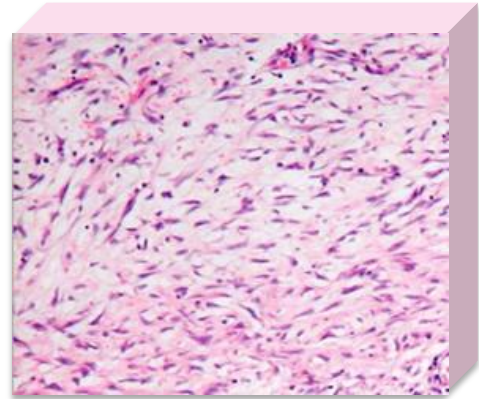


**Aquacel Ag biopsy**  
100µm

### Histological Assessment

#### SILVERCEL® NON-ADHERENT

Minimal debris entrapment, tissue reactions and tissue disruption



**SILVERCEL® NON-ADHERENT biopsy**  
100µm

Fig 3 Cross section histology sample from wounds dressed with Aquacel Ag and SILVERCEL® NON-ADHERENT

### The *in vivo* observations and potential clinical benefits

of SILVERCEL® NON-ADHERENT vs. Aquacel Ag can be summarised as follows:

Stage	Observations	Potential Clinical Benefits
<b>Live</b>	Lower adherence to wound surface Lower wound surface debris	Reduced damage to wound surface Reduced patient discomfort Faster dressing change
<b>Histology</b>	Reduced debris in wound tissues Reduced foreign body reactions Reduced tissue disruption	Reduced inflammation Unimpeded progression of repair

Hart, J. and Bell, A. Evaluation of a novel non-adherent antimicrobial silver alginate/CMC wound dressing in the porcine partial-thickness excisional wound model, Poster, Wounds UK 2009.

## Let's Talk...

To learn more about the benefits of **SILVERCEL® NON-ADHERENT**, contact your Systagenix representative or visit [www.systagenix.com](http://www.systagenix.com)