DesRep

Next-Generation Therapies For Chronic Wounds

ALLOGENIC PLACENTA DERIVED DECIDUA STROMAL CELLS + HYDROGEL X

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دسرپ DesRep

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CHRONIC WOUND

Globally, impaired wound healing affects millions of people, leading to higher mortality rates and increased healthcare costs. Wounds can be classified as acute or chronic, each with distinct healing characteristics. Acute wounds generally heal within 8 to 12 weeks, depending on their size and severity. However, chronic wound, such as diabetic foot ulcers, often fail to heal within this timeframe despite standard therapies. These wounds are accompanied by oxidative stress, persistent inflammation and disrupted angiogenesis, which can result in severe complications including amputation, significantly impacting patients quality of life [1].

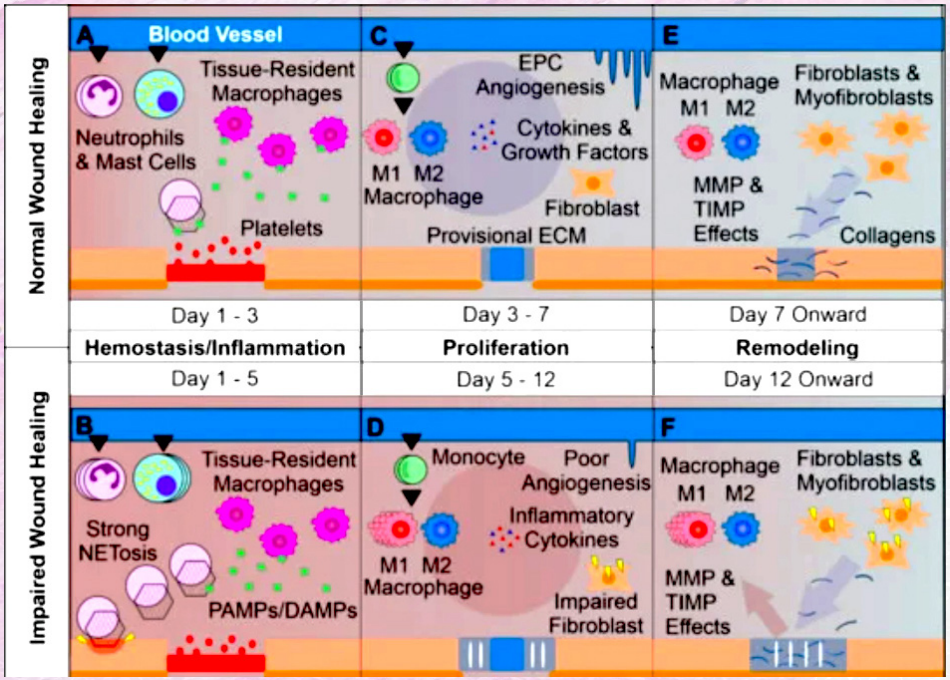
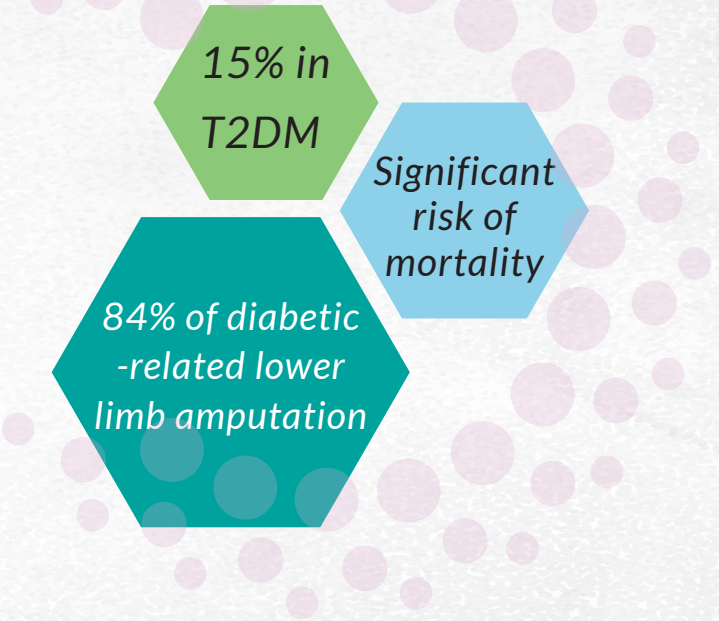


Figure 1: A comparison of the healing progression between chronic and normal wounds reveals distinct stages.

DIABETIC ULCER (DU)

The chronic diabetic ulcer healing landscape stands on the brink of transformation as bio-based materials take center stage, offering groundbreaking solutions to longstanding challenges. These innovative therapy holds the key to overcoming treatment limitations by targeting critical healing aspects like infection control, inflammatory suppression and the acceleration of tissue regeneration and angiogenesis- paving the way unprecedented healing breakthroughs.



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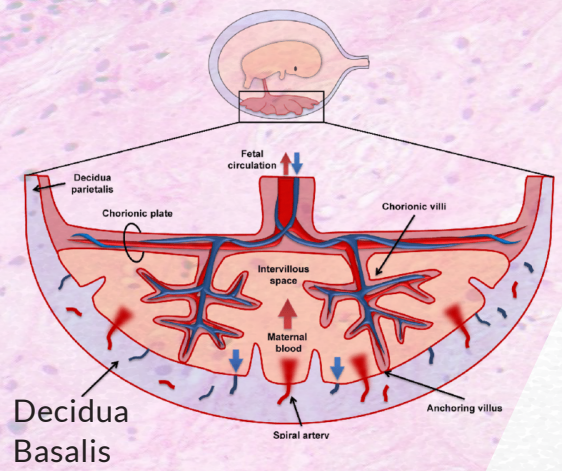
FOUNDATION OF INNOVATION:

WHAT IS DESREP?

Desrep is a cutting-edge derivative of Destrocell, derived from decidual stromal cells. These specialized cells exhibit superior healing, regeneration and immunomodulatory capacities compared to other stromal cell types.

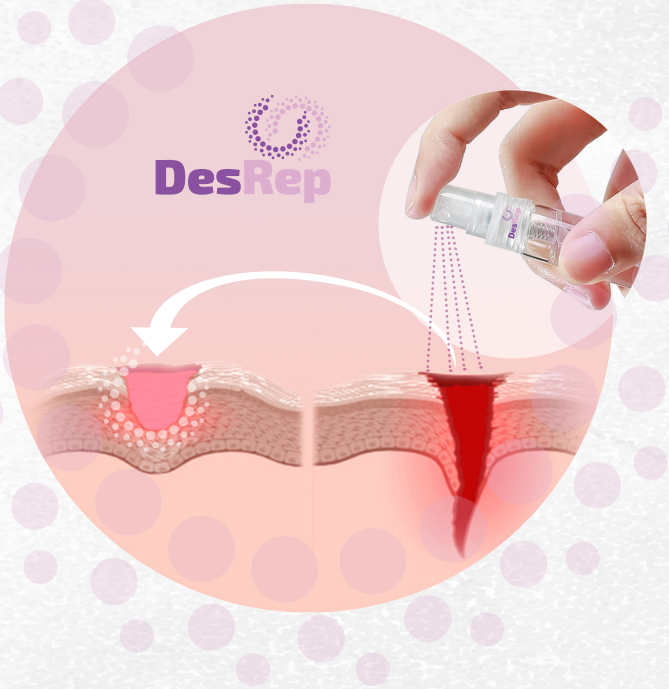
Notably, decidual stromal cells offer excellent tolerability and are ethically sourced through non- invasive procedures, ensuring ease of accessibility and clinical applicability[2,3,4,5].



HYDROGELS AS EFFECTIVE CARRIERS FOR STEM CELL DELIVARY IN TISSUE REPAIR

The primary challenge in this field is how to transfer and maintain these cells effectively at the injury site to ensure their therapeutic role. In this regard, hydrogels based on polymers like alginic acid, collagen and fibrin have been extensively studied as carrier for stem cells.

Hydrogels not only provide a suitable environment for the survival and proliferation of stem cells but also facilitate the delivery of oxygen and nutrients. Consequently, these cell carriers act as a platform to supply stem cells to the injury site, accelerating tissue repair and restore functionality.



TRANSFORMATIVE BENEFITS OF DESREP IN CLINICAL PRACTICE

- ***Greater*** **wound size reduction compared to the control group**
- ***Improved*** **bleeding control**
- ***lower*** **amputation rate**
- ***Reduced*** **treatment cost**
- ***Almost*** **no side effect**

GREATER WOUND SIZE REDUCTION COMPARED TO DESREPTHE CONTROL GROUP

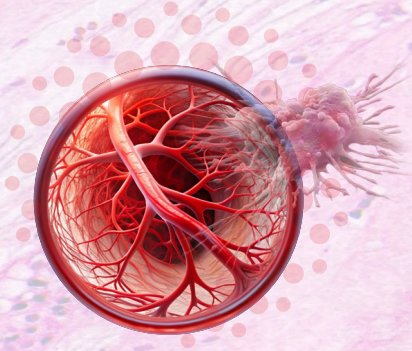
In a phase 1 clinical trial, Desrep demonstrated an 80% reduction in wounds size, from 17.5 cm to 3.5 cm, over a 3-month period, compared to a 49% reduction in the control group. This difference represents a statistically significant improvement in wound healing with Desrep compared to the control treatment.

GREATER WOUND SIZE REDUCTION COMPARED TO DESREPTHE CONTROL GROUP

Figure 2: Diabetic Wound Healing in 3 Patients with Desrep

IMPROVED BLEEDING CONTROL

Alginic acid possesses hemostatic properties, effectively controlling bleeding at the wound site through the release of calcium ions. When combined with Desrep, which reduces inflammation and microbial burden, these effects are further enhanced, contributing to a reduction in wound complications and an accelerated wound healing.



LOWER AMPUTATION RATES

One of the most concerning complications of chronic ulcers is amputation, a risk that Desrep has been shown to reduce.

REDUCED TREATMENT COSTS

Desrep cells are easily accessible from the placenta without the need for invasive procedures, offering a cost-effective option for patients, as the treatment can be repeated accordingly.

ALMOST NO SIDE EFFECTS

Despite the ability to accelerate wound healing, Desrep has not been associated with any adverse effects, and no pain has been reported during its use. However, due to the nature of the cells, mild redness and swelling may occur.

COMPREHENSIVE DRUG DETAILS FOR OPTIMAL OUTCOMES

INDICATIONS

- Non-infectious chronic ulcers: Diabetic ulcer

CONTRAINDICATIONS

- Infectious wounds
- Arterial and venous ulcers
- Pressure ulcers

COMPOSITION

$10x10^6$ Cells
(Allogenic Placenta derived decidua stromal cells= DestroCell) in 5 ml Hydrogel X

COMPREHENSIVE DRUG DETAILS FOR OPTIMAL OUTCOMES

HOW to USE IT

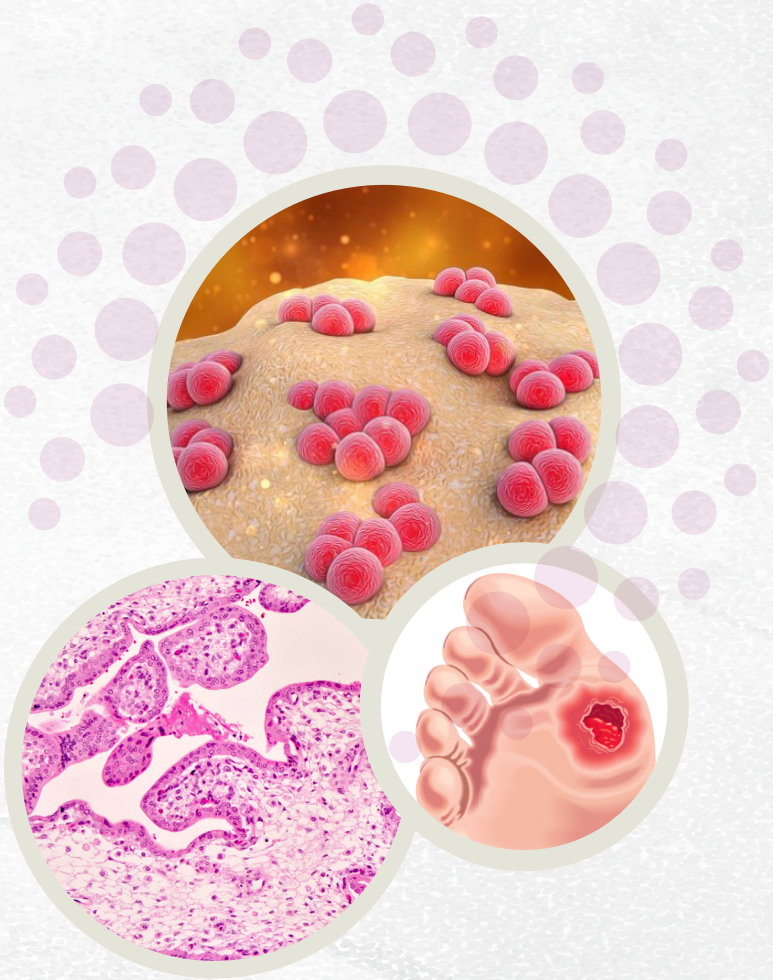
Desrep is administered as a spray twice, with a two week interval between treatments. From the first administration, the wound should be dressed (dressing should be changed every three days).

The effectiveness of the treatment can be observed within a period ranging from two weeks to three months.

Note that before the application of Desrep, the wound should be cleansed with normal saline, and necrotic tissue should be carefully removed.

COMPREHENSIVE DRUG DETAILS FOR DESREPOPTIMAL OUTCOMES

STORAGE
Store between 2-8°C
Do not freeze



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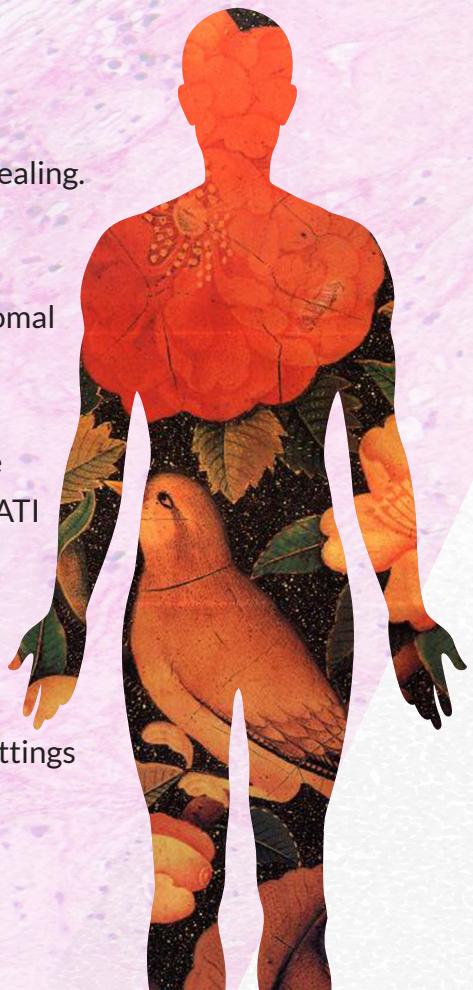

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