

## ***Elasto-Gel™* : Effects in Our Practice**

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St. Janos Hospital is the biggest hospital in Budapest. Our Department is one of the four general Pediatric Surgery Centers in Budapest. In the Department we have both a Trauma and a Burn Unit. Our Burn Unit is unique in Hungary.

Some data about our Department:

We have used ***Elasto-Gel™*** in our practice for six (6) months. I have received some impressions about the therapeutic effect of the ***Elasto-Gel™*** dressings. We are studying the uses of ***Elasto-Gel™***, such as, what are the possibilities or potential applications of ***Elasto-Gel™*** in our Pediatric Practice? We have employed the ***Elasto-Gel™*** for therapy of 18 patients; 11 were burn patients and 7 were trauma victims. The distribution of ages was between 10 months and 15 years, and there were 13 boys and 5 girls.

We are studying the effect of ***Elasto-Gel™*** in the following situations:

- I. On Traumatic Wounds: Excoriations, vulnerable abrasion, traumatic soft tissue defects, and preparing the wound surface for transplantation of skin (skin grafts).
- II. On Burn Wounds: Cleaning the wound after necroctomy, as well as infected wounds, and the mixed thickness burns (superficial and deep burns).

We employ the ***Elasto-Gel™*** in our practice for:

1. Wound cleaning
2. Keeping the wound moist
3. Antimicrobial effect

We have found that the necrolysis time of the destroyed tissue is extended when we apply the ***Elasto-Gel™\****. The prevention of the dehydration of the wound may decrease the secondary necrosis and tissue loss. This preventive effect may prolong the process of necrosis and thus the wound healing may be extended.

The main therapeutic effect of ***Elasto-Gel™*** is, as we currently see it and it is my opinion that ***Elasto-Gel™*** may be used for:

1. Treating a necrotic wound surface
2. Treating full thickness third and fourth degree burn wounds
3. Treating skin and subcutaneous tissue defected wound surfaces

4. Used as a skin substitute for preparation of the wound surface before skin transplantation, the grafting procedure.

\*Note that cadaver skin is preserved for the European Skin Bank by suspending in 85% glycerine solution for an indefinite time.

### **Patient Number 1:**

This patient is an 8 year old boy who suffered a very serious truck accident on March 24, 1994 at 9:00 a.m. His diagnosis was:

Comotio cerebri (concussion of the head)  
Decollement on (denudement of) the thigh, bottom and perineum  
Necrosis cutis  
Shock

After the accident, on March 28<sup>th</sup>, because of the skin necrosis a necrectomy was made and we implanted Fixateur Externe in the pelvis. The wounds were then covered with *Elasto-Gel™* dressings. On March 30<sup>th</sup>, the necrectomy (removal of the dead tissue) was followed by flap-plasty and a partial thickness skin graft.

After one month, on April 25<sup>th</sup>, a very small wound remained next to the anus, which was autografted to complete closure. After six weeks, May 6<sup>th</sup>, the Fixateur Externe apparatus was removed from the pelvis, and he was completely healed on May 18<sup>th</sup>.

Two months after the accident, this patient left our department with just one more problem. He still needs an urethra-plasty some time in the near future.

### **Patient Number 2:**

This patient is a 14 year old boy who was burned due to a high voltage, strong current accident. He was admitted to our Department on April 1, 1994. The burn was 60% BSA, mostly third and fourth degree burns.

On April 5<sup>th</sup>, a partial necrectomy was performed. The wound was covered with *Elasto-Gel™* to protect and cover the necrotic tendons and muscles which were exposed. On April 8<sup>th</sup>, we changed the *Elasto-Gel™* dressings and observed the devitalized tissues. On April 11<sup>th</sup>, a necrectomy was performed on the surface of the leg and the wound covered with *Elasto-Gel™*. On April 18<sup>th</sup>, a second necrectomy was performed, which was followed with an auto-skin graft.

On April 20<sup>th</sup>, the wound surfaces were infected by Pseudomonas on the surface of the back side of the trunk, where we used 0.5% silver nitrate (AgNO<sub>3</sub>) solution, which is very effective against the gram-negative bacteria. But, on the wound surface of the leg there was no infection. It was totally clean under the *Elasto-Gel™*!

On April 25<sup>th</sup>, an autograft was made onto the wound. I wanted to know what would happen to the wound the next day if I put *Elasto-Gel™* over the graft. It was not successful, the wound bed was too wet and the graft “take” was not perfect.

On May 20<sup>th</sup>, the leg was healed!

This preliminary paper was presented in Brussels at the Second Annual European Symposium of *Elasto-Gel™* Applications on May 27, 1994.