**Lactobionic Acid, A Bionic Acid Enhances Skin Clarity and Provides Skin Plumping and Firming Effects**

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**Introduction**

Lactobionic acid is a bionic acid with numerous skin care benefits. It is a chemically neutral sugar found in the body that is utilized by skin during glycosaminoglycan and collagen syntheses, and cell migration; studies indicate that it may enhance wound healing.

Study Conduct

- **Design:** Prospective, direct-comparison to baseline scores (for visual grading & firmness) and to untreated control (for skin thickness & biopsies); protocol received IRB approval and informed consent was executed.
- **Sample size:** 31 women, 30-50 years of age. Populations groups 1 and 2 (160 patients) face; groups 3 and 4 (140 patients) face.
- **Procedures & Application:** Lotion was applied onto the tanned forearm skin (for skin thickness & biopsies); protocol received IRB approval and informed consent was executed.
- **Clinical Evaluations:** Clinical Photographs were evaluated equally by a trained evaluator using a 0 to 10 scale.

**Objective**

This paper presents clinical study results of a topical product formulation containing 3% Lactobionic acid to evaluate the anti-aging effects of lactobionic acid.

**Results**

- Clinical grading and pinch recoil: mean values were compared to baseline scores using a paired t-test.
- Total skin thickness: mean values were compared to baseline scores using a paired t-test.
- Self-assessment questionnaires were tabulated and a top box analysis was performed between treated and untreated test sites were made using ANOVA with Fishers LSD for pair-wise comparisons.

**Clinical Photographs**

- Improved texture
- Improved tone
- Increased skin density of dermal collagen (blue color) representing glycosaminoglycans and elastin (whitish color).

**References**

5. Francis 2005; 77-93.
9. Increased skin density of dermal collagen (blue color) representing glycosaminoglycans and elastin (whitish color).
10. MMPR: 400X
11. Significant self-assessed skin improvements were noted. These findings support the clinical grading and efficacy measurements.

**Clinical Evaluations**

- Skin Thickness Measurements on Forearms
- Facial Imitation Grading
- Percent
- **Lactobionic Acid**

**Summary**

Lactobionic acid is a polyhydroxy acid with numerous skin care benefits. It is an excellent moisturizer and antioxidant, and possesses anti-aging effects, making it ideal for use in skin care.