

## 4<sup>th</sup> International Conference on **Clinical & Experimental Dermatology** April 14-16, 2014 Hilton San Antonio Airport, TX, USA

## Polydeoxyribonucleotide Intradermal therapy in genital Lichen sclerosus

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**Background:** Lichen sclerosus (LS) is a complex autoimmune chronic inflammatory skin disease that leads to tissue sclerosis and atrophy. LS is considered a non-obligate pre-cancerous disease. The treatment of LS is still currently being codified. Actually, the first-line treatment consists in ultra-potent local steroid. Polydeoxyribonucleotide (PDRN), an A2A receptor agonist, has demonstrated anti-inflammatory effects through the reduction of Cytokine production and growth stimulation of fibroblast, as well as through their specific proteins synthesis. PDRN also seemed to promote proliferation of human pre-adipocytes, which constitute the most abundant source of adult stem cells.

**Objective:** To evaluate the efficacy of intra-dermal administration of Polydeoxyribonucleotide (PDRN) solution in adult male patients suffering from mild to severe genital Lichen sclerosus, as compared to administering triamcinolone acetonide intralesional injection without PDRN.

**Patients/Methods:** A group of male patient (n=28; aged 25 to 65 year-old) with a history of mild to severe genital lichen sclerosus (LS) and with a moderate to severe impairment of sexual relationship, selected from our dermo-venereological private practice centre, were enrolled for this clinical study. All patients gave their informed consent to treatment. Inclusion criteria for participation in the study included =18-year old males with first occurrence of genital LS, biopsy-proven. The disease activity at baseline was evaluated as assessed by the investigator on the Investigator's Global Assessment (IGA). A group of these patients (Group A; n=14) were treated with sub-dermal injections of Polydeoxyribonucleotide solution (5625 mg of PDRN in a 3-mL) plus sub-dermal injections of Triamcinolone acetonide (TA) 10mg solution, on site of pathology, twice a month for 4 months. The remaining patients (Group B; n=14) were treated with only sub-dermal injection of TA 10mg solution.

**Results:** After therapy, in all patients of group A (n=14) there has been a marked regression of most of clinical pathological signs of LS according to IGA assessment, while there has been a slight to moderate improvement in all group B patients (Group B, n=14).

**Conclusions:** On site intra-dermal administration of PDRN, associated with TA 10mg solution therapy, seemed to promote a cellular and anti-inflammatory pathway that could be associated with a marked clinical improvement of Lichen sclerosus.

## Biography

Luigi Laino is a Reseracher of historical Dermatological Institute San Gallicano for Research and care in Rome. He wrote up to 20 scientific work, and some scientific book chapter. He have translated "skin bacterial infections" chapter of Merck's Manual italian Edition 2014; Dr. Laino take part to the international guidelines of medical Thermography, Iguacu, Brazil 2011. His name is cited in Who's Who in medicine and healthcare edition 2011-2012, and the incoming Who's Who in the world edition 2014.

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