**SUMMARY OF CLINICAL DATA FOR THE HEALING EFFECTS OF HYALURONIC ACID**

**Action of Hyaluronan on the wound healing process**
E Baysse, B Piotrowski, P Piantoni, G Brunel. Faculty of Dental Surgery Toulouse
Dental information No2 2004

**Results**
The results indicate that Hyaluronan promotes wound healing and bone consolidation following tooth extraction. The result also suggests that Hyaluronan could be useful to cut down the interval between extraction and implantation.

**Comparison of the healing of immediate function implants. Inside maintenance protocol using Hyaluronic Acid and Chlorhexidine gels**
Nobre et al Dept of Oral Hygiene, Lisbon
Journal of Clinical Periodontology

**Results**
The results demonstrate the importance of a maintenance protocol in immediate function implants. These findings show that using Gengigel for the first two months post implant (healing/osteo-integration phase) and chlorhexidine from 2-6 months (maintenance phase) produce the most successful results.

**Effects of Topically Applied Hyaluronan on periodontal wound healing**
Ichikawa, Takayoma et al Osaka University. Japan

**Results**
We histologically observed new alveolar bone formation at HA applied sites. These findings show that topically applied HA (Gengigel) in alveolar bone defects accelerates periodontal wound healing.

**Stimulation of Osteoinduction in bone wound healing by Hyaluronan**
Sasaki, Watanabe
Bone 16:9 – 15. 1995

**Results**
Hyaluronan is capable of accelerating new bone formation through mesenchymal cell differentiation in bone wounds.

**Proteoglycans at the Bone Implant surface**

**Results**
This model proposed that titanium surfaces accelerate osseo-integration by causing the rapid degradation of a Hyaluronan meshwork formed as part of the wound healing process.

**A comparison in post operative healing of sites receiving non surgical debridement augmented with and without a single application of hyaluronan**
Koshal A, Bolt R, P.Galgut
Birmingham
Quintessence

**Results**
After periodontal pocket debridement the application of Gengigel professional into the pocket produced a significant reduction of pocket depth.
**Clinical study of Hyaluronic Acid in the treatment of chronic periodontitis**
Yu Y, Frentzen OL, Jevve –Storm PH
Department of Periodontology Sichum University
Journal of Periodontology 2004

**Results**
A significant improvement in all clinical parameters was observed in both groups. However the Hyaluronic Acid group showed significant rapid control of local inflammation and faster healing compared to the RSP group.

**Anti proliferative effect of Gengigel**
Mesa FL, Aneiros J, Cabrera A et al
School of Dentistry Univ. Granada
Histol Histopathol 2002: 17

**Results**
Hyaluronan reduces cell proliferation in epithelial cells, abates the inflammatory process and improves periodontal lesions in patients with chronic periodontitis.

**Double blind study of Hyaluronan in periodontitis**
Aguado et al
International Association Dental Research 2002

**Results**
Gengigel proved to be an effective treatment in controlling the inflammatory process and gingival bleeding at the various stages of periodontal disease. A reduction in the depth of gingival pockets was observed in numerous areas with a significant reduction in epithelial and lymphocyte proliferation.

**Treatment of Gingivitis with Hyaluronan**
Jentsch, Pomowski, Kundt, Gocke
Journal of Clinical Periodontology 2003

**Results**
Compared to placebo Gengigel produced significant changes in the clinical parameters API, TUR and BPI. Also the reduction in clinical markers Lysozyme and peroxidase showed that Gengigel reduced inflammation rapidly. Gengigel exerted an anti inflammatory and anti oedematous effect in gingivitis.

**Effectiveness of Hyaluronan in the therapy of gingivitis**
A. Pistorius et al
University of Mainz
Journal of Periodontology

**Results**
In the study it has been shown that Gengigel effected significant improvements in the parameters of inflammation of gingivitis, SBI, PBI and CFFR

**Double blind study of Hyaluronan in Gingivitis**
Pagnacco A Vangelist R, Errac
International Dental Journal 1997. 15

**Results**
Gengigel proved effective in promoting more rapid, complete remission of symptoms in patients with plaque generated gingivitis compared to placebo.
**Double blind clinical trial of placebo V Gengigel**
Vangelisti R Pagnacco O, Erra c
Attualita Terapeutica internazionale 1997 No 4

**Results**
As the result of the natural activity of HA Hyaluronic acid, Gengigel proved able to promote rapid remission of symptoms after the professional session when used twice a day for four weeks as a compliment to oral hygiene. Gengigel can be used to prevent relapsing episodes of gingivitis not only to the marginal mucosa but also to the deeper periodontal structures which can suffer gradual loss of attachment.

**Clinical Evaluation of Hyaluronan Gel v RSP in the treatment of Gingivitis**
Dr Sapna
Gandhi university of Health sciences
Doctoral Thesis

**Results**
Topical administration of Gengigel together with RSP was more effective than scaling alone or Gengigel alone.

**The effect of topical 0.2% Hyaluronic Acid gel (Gengigel) on recurrent mouth ulcers**
Cutaneous Biology Research Institute Seoul
Symposium Bechets disease
(Journal of Oral Medicine)

**Results**
Topical application of 0.2% HA gel appears to be effective and safe especially for reducing numbers, healing time period, pain and area of ulcers.

**Double blind study of 120 patients with severe recurrent mouth ulcers**
Nolan, A, Seymour, R, et al
Newcastle Dental school

**Results**
Both topical HA and HA placebo resulted in a significant reduction in pain discomfort following immediate application. Patients treated with topical HA recorded fewer ulcers by day 5 than those treated with placebo and likewise the occurrence of new ulcers was lower in the HA treated group on day 4 compared to placebo.

**Double blind study comparing Hyaluronan cream to placebo in patients treated with radiotherapy**
Radiotherapy and Oncology 42/1997

**Results**
The prophylactic use of Hyaluronan was shown to reduce the incidence of high grade radio – epithelititis in patients undergoing radiotherapy.