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Subject: Neues IGF-1 spezifisches Behandlungskonzept-Pfeffer

Posted by [tino](#) on Wed, 08 Aug 2007 23:23:13 GMT

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Hallo

Wie versprochen mein neues Konzept zur Erhöhung des IGF-1 Spiegels.

Das allerwichtigste Hormon für Haarwuchs ist der Insulinartige-Wachstumsfaktor IGF-1. Von diesem hängt die komplette Haaralterung, bzw. Haarerhalt, und vor allem das Nachwachsen von Haaren unter jeder Behandlungsform ab. Ohne IGF-1 hätte man Haarfollikel, die einem Floh zum Spielen zu klein wären, der Haarfollikel kann nur unter IGF-1 Einfluss bestehen. Bei androgenetischen, und anderen Alopezien, entzieht das Bindungsprotein IGFBP-3, dem Haarfollikel das IGF-1 über TGF- $\beta$  ab, was dann zur Schrumpfung des Haarfollikels führt. DHT, Stress, Rauchen etc... all das verursacht Haarfollikelschrumpfung auf diesem Wege. Namenhafte Wissenschaftler wie Prof. Paus plädieren für die Entwicklung von z.B. topischen IGF-1 Stimulanten, zur Behandlung von Haarwuchsstörungen aller Art.

Eine neue Studie, belegt das, was ich schon immer prophezeit habe. Sie zeigt das ein durch NEM-förmig erhöhter IGF-1 Spiegel, Verbesserungen bei AGA an Mensch und Maus schafft.

Es geht um diese Studie.

Administration of capsaicin and isoflavone promotes hair growth by increasing insulin-like growth factor-I production in mice and in humans with alopecia. Harada N, Okajima K, Arai M, Kurihara H, Nakagata N.

Department of Translational Medical Science Research, Nagoya City University, Graduate School of Medical Sciences, Kawasumi 1, Mizuho-cho, Mizuho-ku, Nagoya 467-8601, Japan.

**OBJECTIVE:** Insulin-like growth factor-I (IGF-I) plays an important role in hair growth. Capsaicin activates vanilloid receptor-1, thereby increasing the release of calcitonin gene-related peptide (CGRP) from sensory neurons, and CGRP has been shown to increase IGF-I production. We recently reported that isoflavone, a phytoestrogen, increases production of CGRP by increasing its transcription in sensory neurons. These observations raise the possibility that administration of capsaicin and isoflavone might promote hair growth by increasing IGF-I production. In the present study, we examined this possibility in mice and humans with alopecia. **DESIGN:** Dermal IGF-I levels, immunohistochemical expression of IGF-I in the skin and hair regrowth were examined after capsaicin and isoflavone administration to wild-type (WT) mice and CGRP-knockout mice. Plasma levels of IGF-I and promotion of hair growth were evaluated in 48 volunteers with alopecia after administration of capsaicin and isoflavone for 5 months. **RESULTS:** Subcutaneous administration of capsaicin significantly increased dermal IGF-I levels at 30 min after administration in WT mice ( $p < 0.01$ ), but not in CGRP-knockout mice. Dermal levels of IGF-I were significantly higher in WT mice administered capsaicin and isoflavone for 4 weeks than in those administered capsaicin alone for 4 weeks ( $p < 0.01$ ) and in those administered neither of them

( $p < 0.01$ ). Immunohistochemical expression of IGF-I at dermal papillae in hair follicles was increased in WT mice administered capsaicin and isoflavone and in those administered capsaicin alone at 4wks. Hair regrowth was clearly more accelerated in WT mice administered capsaicin and isoflavone for 4wks than in those administered capsaicin alone for 4wks and in those administered neither of them. Plasma levels of IGF-I were significantly increased from baseline levels in 31 volunteers with alopecia at 5months after oral administration of capsaicin (6mg/day) and isoflavone (75mg/day) ( $p < 0.01$ ), while they were not increased in 17 volunteers with alopecia administered placebo. The number of volunteers with alopecia who showed promotion of hair growth at 5months after administration was significantly higher among volunteers administered capsaicin and isoflavone (20/31: 64.5%) than among those administered placebo (2/17: 11.8%) ( $p < 0.01$ ). CONCLUSIONS: These observations strongly suggested that combined administration of capsaicin and isoflavone might increase IGF-I production in hair follicles in the skin, thereby promoting hair growth. Such effects of capsaicin and isoflavone might be mediated by sensory neuron activation in the skin.

Die Probanden haben Capsaicin und Isoflavone bekommen. Capsaicin bewirkt ueber diverse Mechanismen eine Erhoehung des IGF-1 Spiegels. Dies anscheinend nicht nur systemisch, sondern auch lokal bei topischer Anwendung. In der folgenden Arbeit, hat es topisch appliziert, die Elastizitaet der Haut ueber eine bessere lokale IGF-1 expression gebessert. Das deckt sich voll und ganz mit den frueheren Arbeiten von Dr Rudmann, die festgestellt hat, das eine systemische IGF-1/rHGH Gabe, sogar Falten bei aelteren Maennern verschwinden liess.

Effect of topical application of capsaicin and its related compounds on dermal insulin-like growth factor-I levels in mice and on facial skin elasticity in humans. Harada N, Okajima K. Department of Biodefense Medicine, Nagoya City University Graduate School of Medical Sciences, Kawasumi 1, Nagoya, Japan.

Capsaicin increases calcitonin gene-related peptide (CGRP) release from sensory neurons by stimulating vanilloid receptor-1 (VR-1). Since CGRP increases production of insulin-like growth factor-I (IGF-I) in fetal osteoblasts in vitro, it is possible that sensory neuron activation by capsaicin increases production of IGF-I. In the present study, we attempted to determine whether topical application of capsaicin and related compounds increases dermal IGF-I level in mice and whether it increases facial skin elasticity in humans. Topical application of 0.01% capsaicin significantly increased dermal IGF-I levels from 30 to 180min ( $p < 0.01$ ), but not at 360min, after application in mice. Topical application of 0.01% capsaicinoids (dihydrocapsaicin and nordihydrocapsaicin), 0.01% capsinoids (capsiate, dihydrocapsiate and nordihydrocapsiate), 0.01% anandamide (an endogenous agonist of VR-1), and 0.01% nonyllic acid vanillylamide (a synthetic capsaicin) significantly increased dermal IGF-I levels at 30min after topical application in mice ( $p < 0.01$ ). Topical application of 0.01% capsaicin to faces of 17 healthy female volunteers for seven days significantly increased cheek skin elasticity ( $p < 0.01$ ). These observations suggest that topical application of capsaicin and related compounds might be useful in the treatment of detrimental morphological changes of the skin in patients with growth hormone deficiency and those in the elderly by increasing dermal IGF-I levels.

Capsaicin ist die Substanz die Pfeffer und Pepperoni scharf macht. Ein Auszug ist sehr sehr teuer, und fuer niemanden hier erschwinglich. Daher sollte bei Substitution auf den sehr preisgünstigen Cheyenne-Pfeffer ausgewichen werden. Drei Gramm tgl sollten eine ungefaehr gleiche Wirkung zeigen. Additional sollte natuerlich auch Isoflavone substituiert werden. Der Mechanismus der Autoren bz Isoflavone muss nicht stimmen, und oder nicht die gesamte Wahrheit sein. Phytoestrogene aktivieren auch den IGF-1 Rezeptor, was sich dann natuerlich prima mit einem hohen IGF-1 Spiegel ergaenzt.

Ich moechte die Behandlung aber so effektiv wie moeglich haben, und empfehle daher noch zusaetzlich mindestens einen Eiweisschake am Tag, und mindestens ein halbes bis ganzes Gramm Vitamin C, sowie Vitamin A. Ausserdem noch einen Vitamin B Komplex, der dann auch gleich mit 2000 mg NAC ergaenzt werden kann-da die Kombination NAC/Vitamin C, und B-Vitamine, ueber weitere nuetzliche Funktionen den Haarwuchs stabilisiert. Dadas IGF-1 System auch stark von Zink abhaengt, sollte auf c.a 15-20 mg Zink tgl auch nicht verzichtet werden.

Ich berufe mich hier u.a auf folgende Arbeit.

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Diet, serum insulin-like growth factor-I and IGF-binding protein-3 in European women

#### Abstract

Objective: The aim of this study was to examine the relationship of diet with serum insulin-like growth factor-I (IGF-I) and IGF-binding protein-3 in women.

Design: Cross-sectional study.

Setting and subjects: The population are 2109 women who were control subjects in a case-control study of breast cancer nested in the European Prospective Investigation into Cancer and Nutrition. Control subjects were randomly chosen among risk sets consisting of female cohort members alive and free of cancer (except non-melanoma skin cancer) at the time of diagnosis of the index case. Matching criteria were age at enrolment, follow-up time, time of the day of blood collection and study centre. Diet was measured through validated questionnaires. Serum hormone concentrations were measured by enzyme-linked immunosorbent assays. The relationship between serum IGF-I, IGFBP-3, and intake of nutrients and foods was explored by linear regression in models adjusted for energy intake, age, body mass index, smoking, physical activity, centre and laboratory batch.

Results: Serum IGF-I levels were positively related to protein intake ( $P$  trend < 0.001), but not related to energy, fat or carbohydrate intake. Positive relationships were observed with the intake of milk ( $P$  trend = 0.007), calcium ( $P$  trend < 0.001), magnesium ( $P$  trend = 0.003), phosphorus ( $P$  trend < 0.001), potassium ( $P$  trend = 0.002), vitamin B6 ( $P$  trend = 0.03), vitamin B2 ( $P$  trend = 0.001) and inverse relationships with vegetables ( $P$  trend = 0.02) and beta-carotene ( $P$  trend = 0.02). IGFBP-3 was not related with most of the nutrients and foods in this study.

Conclusions: In this population, circulating IGF-I is modestly related with the intake of protein and minerals, and with milk and cheese, while IGFBP-3 does not appear to be related with diet.

Volltext:[http://www.nature.com/ejcn/journal/v61/n1/full/1602\\_494a.html](http://www.nature.com/ejcn/journal/v61/n1/full/1602_494a.html)

Es wird geprüft inwiefern sich Ernährung auf den IGF-1 Spiegel auswirkt. Bei den untersuchten Frauen korrelierte ein IGF-1 Anstieg im Serum positiv mit Protein (Eiweiss), Vitamin B6 und Vitamin B2, Magnesium, Calcium, Phosphor, Kalium, Vitamin A, diversen Früchten und Milch. Negativ korrelierte es mit Fett und Kohlenhydraten.

Die Arbeit ist auch insofern interessant, da sie einen Ansatz zu einer Erklärung, die Wirkungsweise von B Vitaminen auf das Haarwachstum, betreffend liefert.

Da man mit Vitamin A viel falsch machen kann, sollte hier nicht der reguläre Tagesbedarf überschritten werden.

Toppen kann man das ganze mit der Einnahme von 2 Gramm Acetyl-L-Carnitin tgl. Dieser Stoff ist ein exzellenter IGF-1 Lieferant, und hat noch weitere gesundheitliche und haarspezifische Funktionen. Allerdings ist es sehr teuer.

Ich möchte darauf hinweisen das Cheyenne-Pfeffer den Magen erheblich reizen kann, und so chronische Magenbeschwerden verursachen kann. Daher ist es ratsamer die drei Gramm in drei Tagesdosen zu substituieren. Hier eine Arbeit zu scharfen Speisen und Magenproblemen.

## Abstract

In spite of poor evidence, many patients with gastro-oesophageal reflux are advised to avoid fat and spices. We therefore measured gastro-oesophageal reflux after fatty and spicy meals. During three 24-h pH monitoring sessions, eight volunteers ate two identical, low fat and mild beef stews, or a hot and fatty Indian curry for lunch. Meals for dinner were the beef stew, the hot Indian curry or a mild curry. Day-time acid exposure was significantly longer after the hot curry (7.5 % [1.4 - 27.1]) than after the beef stews (2.3 % [0.4 - 9.8] and 2.5 % [0.7 - 15.7]). Night-time acid exposure was also significantly shorter after the beef stew (1.3 % [0 - 9]) than after the mild curry (2.9 % [0 - 19.1]) or the hot curry (4.6 % [0.2 - 22.5]). Within two hours postprandially, reflux was not different between the meals. The number of episodes, however, that occurred more than two hours after lunch was significantly lower after the beef stews (4 [2 - 14] and 4.5 [2 - 10]) than after the hot curry (9 [5 - 16]). The same phenomenon was observed after beef stew (0.5 [0 - 2]), mild curry (2 [0 - 4]) and hot curry (2 [1 - 9]) for dinner. We conclude that meals high in fat can provoke reflux, possibly through delayed gastric emptying. Additional spices, however, do not further increase reflux.

gruss Tino