LDL-CHOLESTEROL AND C-REACTIVE PROTEIN IS INFLUENCED BY ROSE-HIP, A RANDOMIZED, DOUBLE-BLIND, PLACEBO CONTROLLED TRIAL.

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INTRODUCTION:

HybenVital, a standardised powder made from seeds and shells of Rose-hip HybenVital (Rosa-canina L) was reported to lower pain and stiffness in patients with osteoarthrosis and to inhibit the chemotaxis of polymorph nucleated leucocytes (1, 2, 3, 4). Beside antiinflammatory properties, in vitro studies also indicate that Rose-hip HybenVital may lower the oxidation of LDL cholesterol (5).

AIM AND PATIENTS:

The present study aimed to test if 5 gram daily of HybenVital can lower C-reactive protein (CRP) and LDL-cholesterol in a group of 59 middle aged volunteers represented by both sexes, who all participated in a study on osteoarthrosis.

DESIGN:

The study was randomized, double blind, placebo controlled, crossover. The patients were tested on the day of inclusion and then again after 3 month of placebo or HybenVital, respectively. Then a crossover took place and the patients were tested again after this final 3 months treatment period, each patient serving as his/her own control.

METHODS:

C-reactive protein (CRP) and cholesterol fractions were measured with a Hitachi using reagents from Roshe and Orion respectively.

The detection limit for CRP using the present methodology was 4.0 mg/l.

Wilcoxon test for matched pairs was used throughout except when comparing groups.

MAIN STUDY OUTCOMES:

The main outcomes of the study on osteoarthrosis, in which all the present patients participated, was that stiffness and pain significantly declined during treatment with HybenVital (p<0.001 and p 0.003 respectively). Moreover the consumption of paracetamol and opioid analgesics significantly declined in the period while on active treatment (p<0.01 and p< 0.03 respectively).

TOTAL CHOLESTEROL AND LDL-CHOLESTEROL IN PATIENTS WHO WERE RANDOMLY GIVEN HYBEN VITAL OR PLACEBO FOR A THREE MONTH PERIOD AFTER WHICH THEY WERE ALL CROSSED OWER FOR A FINAL THREE MONTH TREATMENT PERIOD.

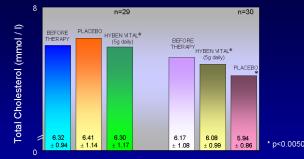
(n=59)

	Before Therapy	Hyben Vital®	Placebo
Total Cholesterol (mmol/l)	6.25 ± 1.00	6.19 ± 1.07	6.17 ± 1.03
LDL Cholesterol (mmol/l)	3.60 ± 1.02	(*) 3.51 ± 0.99	* 3.47 ± 0.92

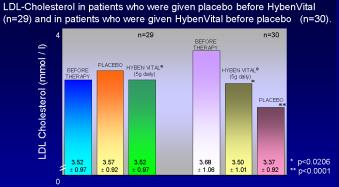
(*) p<0.0600 * p<0.0178

LDL CHOLESTEROL DECLINED DURING BOTH THERAPIES.

Total Cholesterol in patients who were given placebo before HybenVital (n=29) and in patients who were given HybenVital before placebo (n=30).

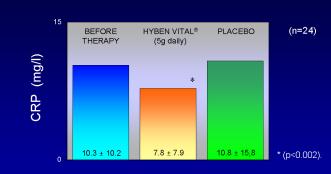


When HybenVital was given before placebo total cholesterol significantly declined (p<0.0050). There was no significant change comparing groups (p<0.4470).



When HybenVital was given before placebo LDL-cholesterol continued to decline after stopping HybenVital treatment. The difference comparing the two groups was significant (p< 0.0370) Anova. HDL-cholesterol (data not given) did not change significantly.

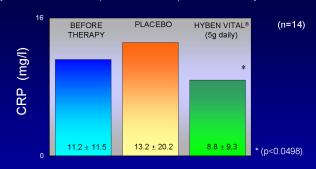
C-reactive protein (CRP) before therapy and during HybenVital and placebo treatment, in the 24 patients in which CRP was detectable.



During HybenVital treatment CPR significantly declined as compared to pre-treatment level.

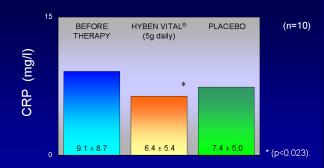


C-reactive protein (CRP) before therapy, during placebo and during HybenVital treatment in patients who had placebo before HybenVital



During HybenVital treatment CRP significantly declined as compared to pre-treatment level.

C-reactive protein (CRP) before therapy, during HybenVital and during placebo therapy in patients who had HybenVital before placebo.



During HybenVital treatment CRP significantly declined as compared to pre-treatment level.

CONCLUSION

- The present data suggest that HybenVital can lower C-reactive protein.
- The present data suggest that HybenVital can lower LDL cholesterol.
- Future studies should be of a parallel design,
 as a carryover effect seems present.

<u>REFERENCES:</u>

- Winther K, Rein E, Kharazmi K. The anti-inflammatory properties of rose-hip. Inflammopharmacology, Vol 7, No. 1, pp 63-68 (1999).
- Kharazmi A and Winther K. Rose hip inhibits chemotaxis and chemiluminecence of human peripheral blood neutrophils in vitro and reduces certain inflammatory parameters in vivo. Inflammopharmacology, Vol. 7, No. 4, pp. 377-386 (1999).
- Warholm O, Skaar S, Hedman E, M
 ølner H M, Eik L. Hyben Vital, a stadardised powder made from Rose-hip (rosa canina), reduces pain and stiffness of the hip and improves daily functions in a group of patients suffering from severe osteoarthrosis. Scandinavian Journal of Rheumatology, Supplement 114, Vol.29 (2000).
- Rein E, Karazmi A, Winther K. Hyben Vital reduces pain, stiffness, and inflammatory markers and improves general well-being in patients suffering from osteoarthrosis. Alternative Therapies, May/June 2001, Vol.7, No.3, pp.S28.
- Rossnagel S, Willich S N. Bedeutung der Komplementärmedizin am Beispiel de Hagebutte. Gesundheitswesen Vol. 63 pp. 412-416 (2001).

