

Name : Influence of the Preparation Erdic on Breasts

Place of work: Department of Gynaecology at the Hospital and Health Centre in Nove Mesto nad Vahoni

Department of Gynaecology at the Hospital and Health Centre in Trencin

Authors: Pavol Durdik, Jela Kubalova, Miroslav Sorf

Introduction

ERDIC tablets are a 100% vegetal product, containing no chemical, animal, genetically-modified or artificial ingredients. ERDIC meets all the requirements of the European food industry. Erdic acts as a phytoestrogen in a natural way stimulating glandular tissue growth in such a way that it effects receptors in the breast.

Ingredients **of Erdic: Hops**, buckwheat, **fennel**, rye, malt, barley, L-Ornithine binder: tricalciumphosphate and silicone dioxide. The nutritive value in kJ per 100 g of the product is 1046 kJ.

Total carbohydrates 43,9 %, of that starch 35,3 %, vegetal sugars 8,6%, proteins 16,4%, fats 1%, fibres 5,9 %

Placebo; buckwheat, rye, malt, barley, natural stabilizers tricalciumphosphate, silicone dioxide

Dosage : The manufacturer recommends 10-15 tablets daily with much water, at least 2 litres daily. As indicated by the manufacturer Erdic is a preparation for women's breasts enhancement - in less than 12 weeks the breasts become firmer, fuller and larger, the results are permanent (with the exception of the ageing effect and possible change of weight). These changes start to show themselves in 4-6 weeks, while if Erdic is taken 6 months the results are very good with almost 90% of women. The objective of our study was to either confirm or to rule out this alleged influence of the preparation on mamma.

Group of examined women and methods

By a random selection we selected for our study 20 women in the age from 20 to 35 years having no mamma illness in their anamnesis. The active Erdic group comprised of 10 women with the average age of 31 years, the control Placebo group of 10 women with the average age of 27 years. A hormonal contraception (HC) was taken by 5 women in the proper group and by 4 women in the placebo group. In the Erdic group 2 patients took Triquilar (Trinordiol – 6

tbl 30u.g eihinylestradiol(EEX 50 u.g levonorgestrelum(LNG); 5 tbl. 40 u.g EE, 10 tbl. 75ug LNG; 30ug EE 125 ug LNG),

3 patients Femoden, Minulet (30|a EE, 75 u.g gestodenum). In the Placebo group 1 patient took Femoden, 1 Marvel on (30 u.g EE, 150 jj.g Desogestrelum),

2 patients Triquilar. 7 women in each group gave birth at least once. Prior to starting to take the tablets each woman went through a gynaecological examination and basic laboratory tests (liver tests, cholesterol, triglycerides, blood count, ESR). Each one had a sonography of breasts in order to rule out a possibility of dysplasia or any other pathology.

We measured the bust of the volunteers, weighted them and determined the breast size according to the bra size. Each of them recorded her subjective observations (pain, tension in breasts) and psychological changes (fatigue, tension, depression, change in libido) into a menstruation calendar.

We measured the **bust** in vertical position at the beginning of the menstrual cycle in a middle breath position, taking the measure on the level of mammillae and on the back on the level of the bottom edge of shoulder blades. We weighted the volunteers also at the beginning of their menstrual cycle only in their underwear.

Subjectively the volunteers monitored **enlargement** (swelling, fullness) and **firmness** of their breasts.

Breast **enlargement** was characterised by the volunteers as a larger bulk of breasts more filling the bra or the volunteers needed a larger cup size bra. The breast became fuller with a mild feeling of breast filling with a physiological minimum mastodynia lasting 4-5 days before the menses.

Firmness of breasts meant a more pronounced breast elasticity, the breast is firmer, less drooping, less limp.

The volunteers started taking Erdic at the beginning of the menstrual cycle while the patients included in the study were not set to hormonal contraception (HC) during Erdic use. The patients in the Erdic group used contraception at least 7 months, maximum 16 months. In the Placebo group the minimum use was 6 months, maximum 14 months. In our study the patients took 12 tablets per day divided into 3 daily doses washed down by 3 dl of water with a minimum income of 2 litres of liquid daily. Prior to giving the first tablets of Erdic to the patients we have explained to them that because of vegetal character of the preparation ERDIC it is important that they observe the producer's recommendation regarding the

liquids income and that they use the tablets regularly each day so that the effects of Erdic could show itself in the most efficient way.

Results

The results are shown in the tables No. 1-6 and in the figures No. 1-7. When evaluating besides the objective evaluation by bust measures, we stressed especially subjective evaluation of the patients. In order to avoid possible minor inaccuracies in measuring of the bust the positive bust enlargement had to be at least 2 cm. After 6 months of use the growth of bust in the active Erdic group by more than 2 cm occurred with 50 % of women (enlargement 2-3.5 cm), while 80% of women reported **subjectively firmer** breasts. There was no case of bust increase by more than 2 cm in the control group. In the active group (Erdic) 80% of women reported subjectively firmer, fuller breasts, with placebo it was only 20%. (Table 1). The total contentment rate with the Erdic preparation after 6 months is 70 %, while it is by 10% less as the proportion of women reporting firmer breasts. It is because one patient though having firmer breasts has not achieved enlargement she had wished very much.

After 9 months of use no further distinct bust enlargement occurred in the **objective** evaluation (i.e. in bust measuring). The number of volunteers with whom the bust increase was more than 2 cm remained the same. (50%) The changes occurred only in the subjective evaluation, where firmer breast were reported by 70% of patients, and that is by 10% less than after 6 months. As we found out by an anamnestic analysis this difference was probably caused by the fact that this volunteer did not keep the recommended dosage and use regularity in the last 3 months. 1 patient in the control group using HC reported subjectively firmer breasts and bust increase by more than 2 cm has not been recorded with any of the patients (Table 1, 2)

We did not use statistic evaluation in the results evaluation because the concerned group of women was relatively small and the results could be skewed at the statistic processing.

As far as the time of use and effects on breast are concerned - the first changes could be seen after 2 months though more pronounced effects of Erdic were visible only after 4 months, while the maximum effect was visible after 6 months and during the next three months no further bust increase occurred, only the breast firmness was a little more pronounced (Figures 1,2).

According to the **subjective** evaluation of the patients the hormonal contraception favourably influenced the Erdic effect on breasts (Tables 3,4). The volunteers used HC at minimum 6 month before they were included into the study, while the effect of enlargement and breast firmness reported by them was related to the use of the actual Erdic preparation. Volunteers in the active ERDTC group used HC, and after 9 months 4 of them subjectively evaluated enlargement and a higher breast firmness (80%) In the Placebo group 4 volunteers used HC and after 9 months only one of them (25%) reported enlargement and higher breast firmness.

The women in the active ERDTC group not using HC (5) reported enlargement after 9 months in 2 cases (40%) and in the **PLACEBO** group of 6 women without HC no one reported enlargement. Of the 5 women without HC in the active ERDTC group 3 (60%) reported increased breast firmness after 9 months, in the PLACEBO group of the 6 without HC none reported increased breast firmness (Table 3,4). This fact point out the actual influence of Erdic on mamma and that the effect of its **hops ingredient**.

In the objective measuring of the bust after 6 and 9 month we recorded enlargement exceeding 2 cm with 5 volunteers (50%) in the Erdic group, of which 4 took HC (80%). There was no case of bust increase over 2 cm with any of the volunteers in the PLACEBO group even if 4 of them used HC. This fact points out the actual effect of Erdic preparation on bust increase (Table 6a, 6b),

During the 9 months there was no change in the sonographic picture of the patients in the sense of a possible pathology formation. In the laboratory picture the activity of liver enzymes and also the blood count were within reference values.

There were no substantial weight changes during the 9 months with any woman in both groups (Table 5a and 5b, Figure 5). On the basis of the mentioned data it is possible to claim that the use of Erdic does not influence the weight and possible weight changes with some of the women can not be related to the Erdic use. We as well did not register any bust increase accompanied by weight gain (Figures 3, 4)

As the Erdic tablets contain a fibre with an antiatherogenic effect we monitored also the cholesterol values. After 6 months the cholesterol values of 60% of women in the active Erdic group were reduced in comparison to cholesterol reduction with only 10% of women in the placebo group (Figures 6-7). After 9 months the number of women with reduced cholesterol in comparison with initial values represented 60%, though with some of the patients the values of cholesterol were mildly higher in comparison with values recorded after 6 months. In the control Placebo group we recorded cholesterol reduction with 2 patients (20%).

Table 1

Subjective evaluation of Erdic vs. Placebo after 6 and 9 months

	Placebo n=10	Erdic n= 10
Enlargement	2 (20%)	5 (50%)
Firmer	1 (10%)	8 (80%)
Enlargement	2 (20%)	5 (50%)
Firmer	1 (10%)	7 (70%)

Table 2

Objective bust changes Erdic in comparison to Placebo after 6 and 9 months

	Placebo n= 10	Erdic n= 10
Bust increase over 2 cm	0 (0%)	5 (50%)
Bust increase over 2 cm	0 (0%)	5 (50%)

Table 3 Enlargement (filling) of breasts depending on the period of Erdic use -- subjective evaluation of the volunteers

2 months	4 months	6 months	9 months
3 (30%)	5 (50%)	6 (60%)	6 (60%)
2 (40%)	3 (60%)	4 (80%)	4 (80%) *
1 (20%)	2 (40%)	2 (40%)	2 (40%)
1 (10%)	1 (10%)	2 (20%)	1 (10%)
1 (25%)	1 (25%)	1 (25%)	1 (25%)
0	0	1 (16,6%)	0 (0%)

■ **3 patients Fcmoden, 1 Triquilar IIC = hormonal contraception**

Table 4 : Breast firmness and period of Erdic use - subjective evaluation of the volunteers

2 months	4 months	6 months	9 months
2 (20%)	5 (50%)	8 (80%)	7 (70%)
2 (40%)	3 (60%)	5 (100%)	4 (80%)
0	2 (40%)	3 (60%)	3 (60%)
0	1 (10%)	2 (20%)	1 (10%)
0	1 (25%)	1 (25%)	1 (25%)*
0	0	1 (16,6%)	0 (0%)

Triquilar

Table 5a Influence of the ERDIC preparation on weight in comparison with Placebo

	Placebo	Erdic
Weight (kg) difference between the beginning of use and after 6 months	n / %	n / %
No change	2 / 20%	3 / 30%
Gain (kg)	5 / 50%	3 / 30%
Loss (kg)	3 / 30%	4 / 40%
Average weight gain (kg) after 6 months of use	0,5 kg	-0,4 kg

Table 5b Influence of ERDIC preparation on weight in comparison to Placebo

	Placebo	Erdic
Weight (kg) difference between the beginning of use and after 9 months	n / %	n / %
No change	4 / 40%	4 / 40%
Gain (kg)	5 / 50%	3 / 30%
Loss (kg)	1/10%	3 / 30%
Average weight gain (kg) after 9months of use	0,6 kg	-0,2 kg

Table 6: Bust changes - objective measuring

	Placebo n=10	Erdic n=10	Placebo n=10	Erdic n=10
Bust changes after 6 and 9 months	n/%	n/%	n/%	n/%
	6 months		9 months	
No change	6 / 60%	1 / 10%	7 / 70%	2 / 20%
Reduction	1 / 10%	0 / 0%	0 / 0%	0 / 0%
Enlargement	3 / 30%	9 / 90%	3 / 30%	8 / 80%

Table 6a : Bust increase to 2 cm, over 2 cm

	Placebo n= 10	Erdic n=10	Placebo n= 10	Erdic n= 10
Bust changes after 6 and 9 months	n / %	n / %	n / %	n / %
	6 months		9 months	
Enlargement (by 0,5- 2cm) % of the total number	4/40%	4 / 40%	4 / 40%	3 / 30%
Enlargement more than 2,0 cm % of the total number	0 / 0%	5 / 50%	0 / 0%	5 / 50%

**Table 6b : Bust increase over 2 cm with women with HC and without HC in ERDIC
AND PLACEBO groups**

ERDIC - number of women	(n/%) 6 months	(n/%) 9 months
with HC : 5	4 / 80%	4 / 80%
without HC : 5	2 / 40%	2 / 40%
PLACEBO - number of women		
withHC : 4	0	0
without HC : 6	0	0

Figure 1 : Subjective evaluation of breast firmness improvement during Erdic use

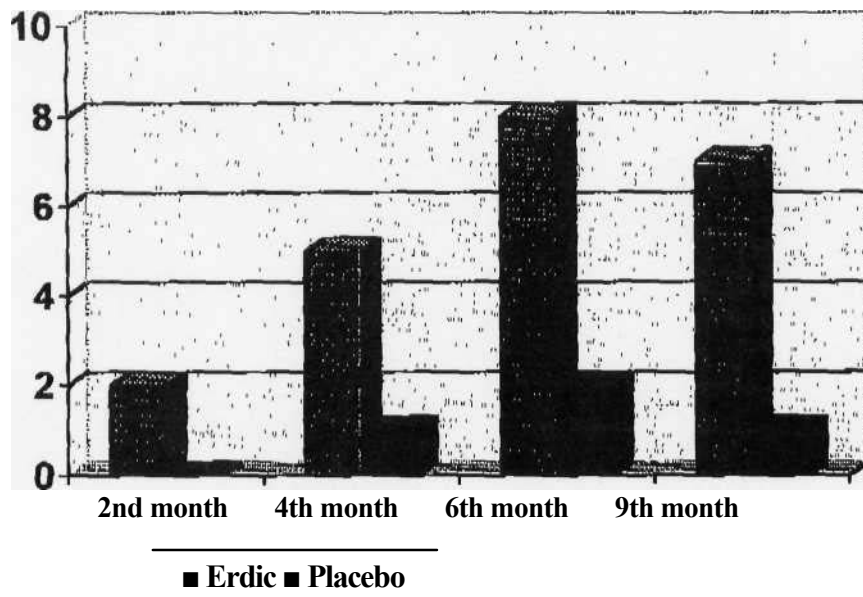


Figure 2 : Subjective evaluation of breast enlargement during Erdic use

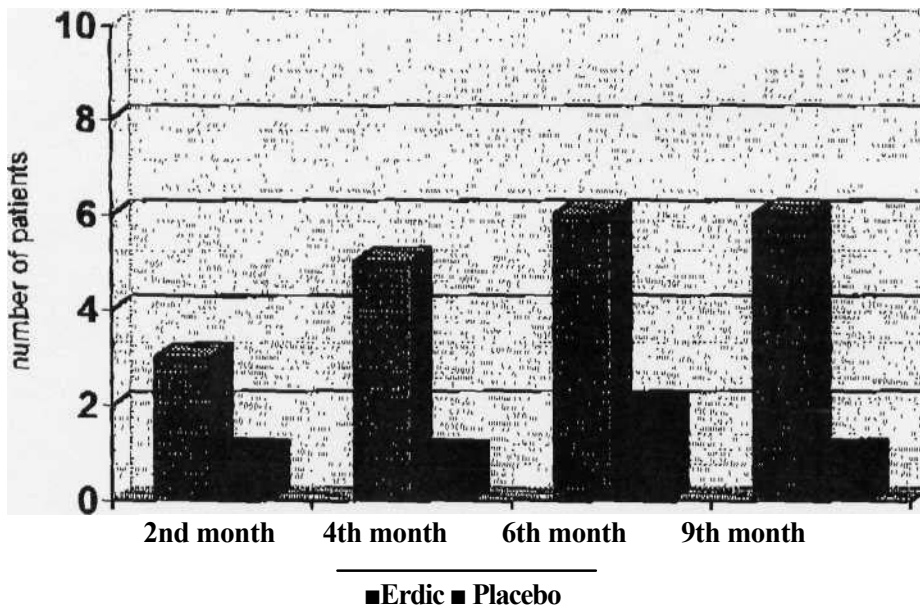


Figure 3 Relation of bust and weight change in the active ERD1C group

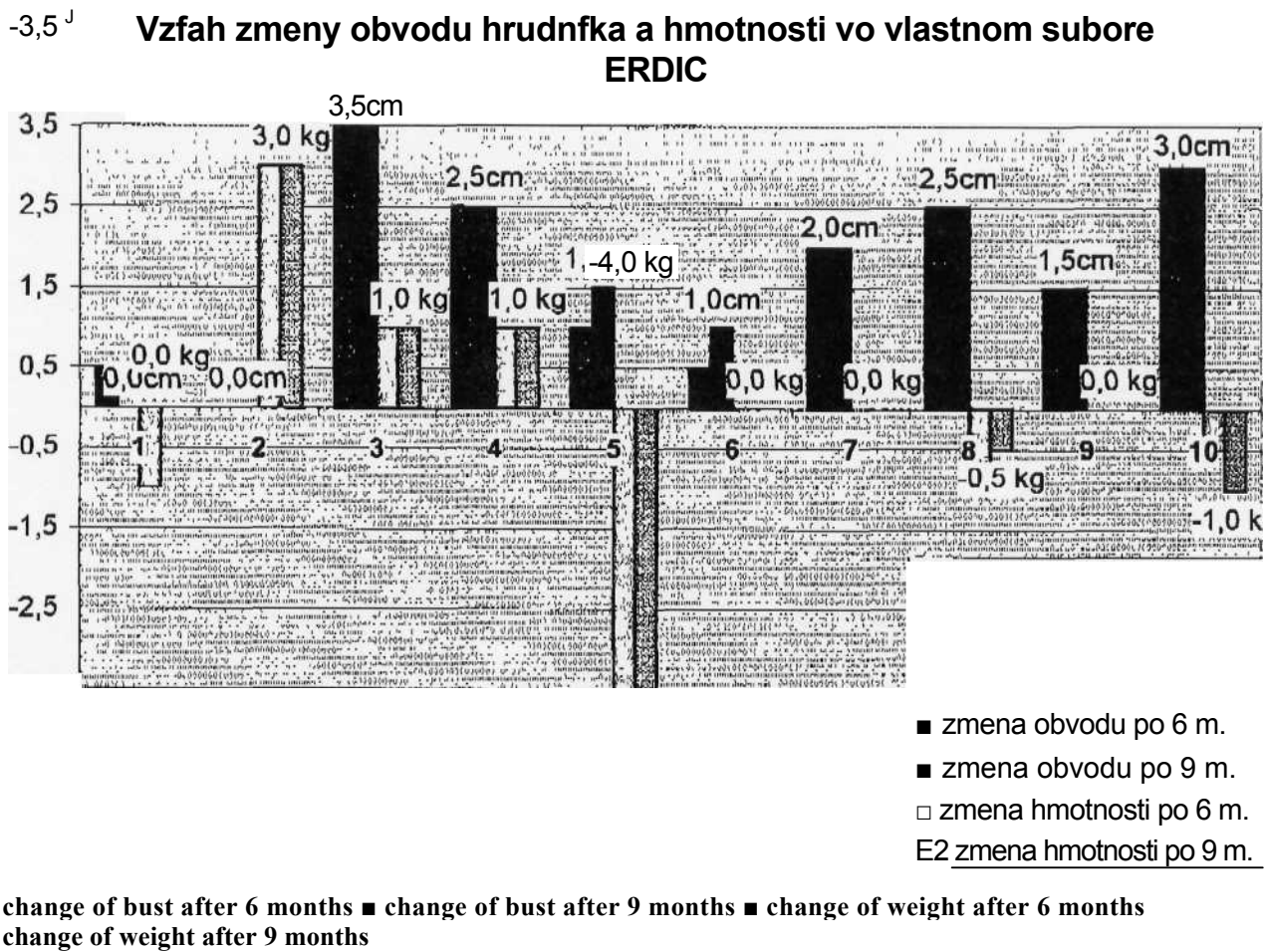
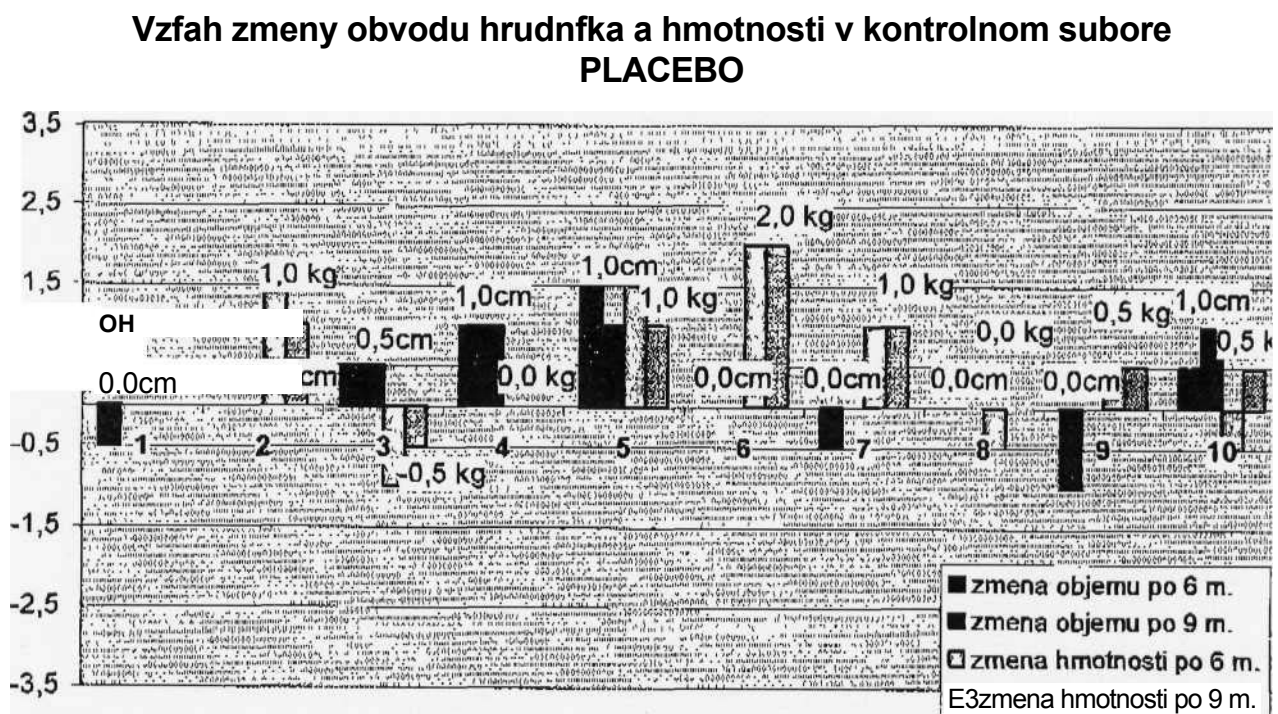


Figure 4 Relation of bust and weight change in the control PLACEBO group



i bust change after 6m. i bust change after 9m. m weight change after 6m. ■ weight change after 9m.

Figure S: Weight changes after 9 months of Erdic and Placebo use

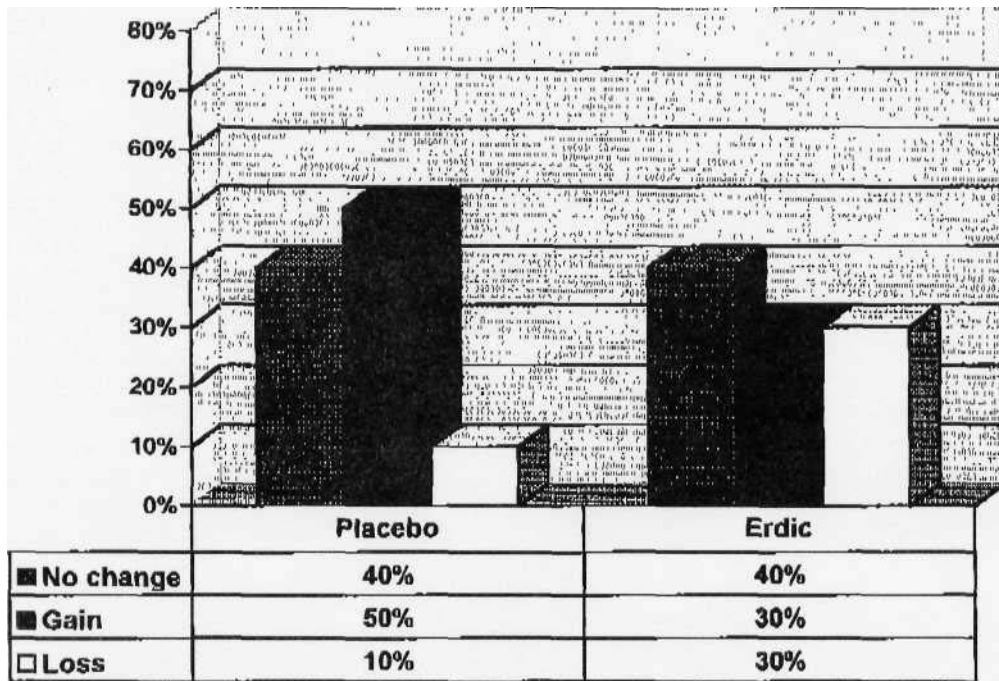


Figure 6 Comparison of cholesterol levels of patients using ERDIC at the beginning of use and after 6 and 9 months

Porovnanie hladin choiesterolu u pacientiek uifvajucich ERDIC na zaciatku uifvania a po 6 a 9 mesiaeoeh

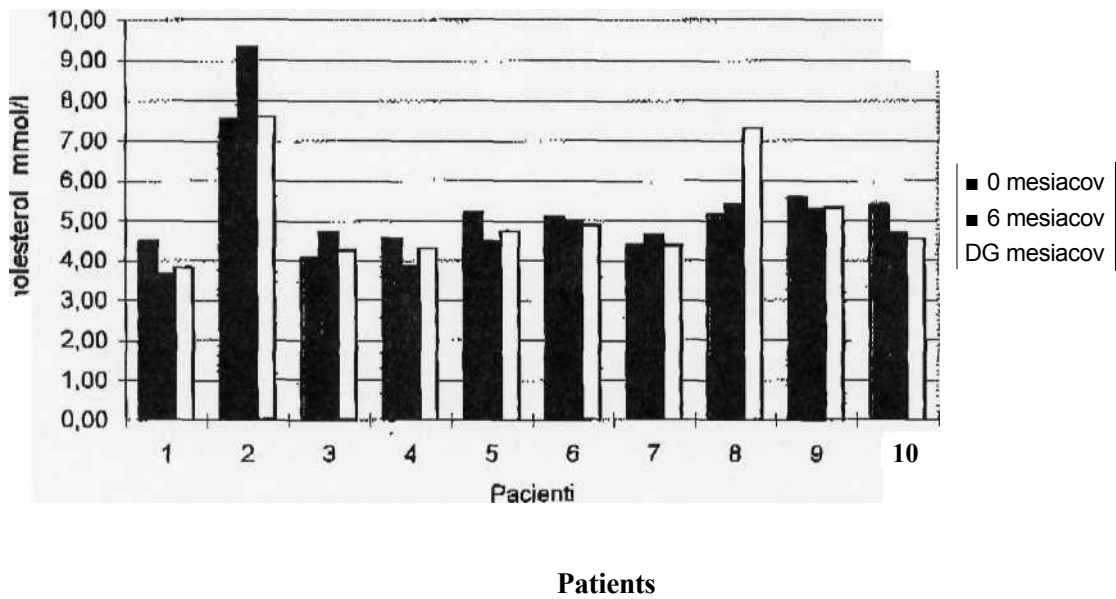
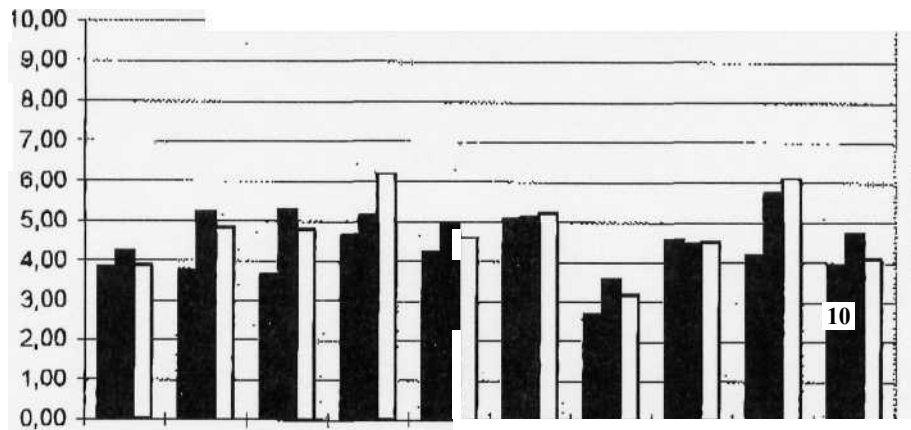


Figure 7 Comparison of cholesterol levels of volunteers using Placebo at the beginning of use and after 6 and 9 months

Porovnanie hladin cholesterolu u probandiek uzivajucich Placebo na zaciatku uzfvania a 6 a 9 mesiacoch

■ 0 mesiacov ■ 6 mesiacov ■ 9 mesiacov



Volunteers

Conclusion:

From our experience we recommend the preparation especially for women with limp, drooping breasts as a result of childbirth or age who want to have their breasts firmer and prettier and the breast enlargement is not of prime concern. Such breasts were achieved after 9 month use by 70% of women while bust increase by 2 cm, that we have evaluated as a favourable effect on breasts occurred with 50% of women. In case the patient wants to use Erdic only for the purpose of bust increase it is necessary to warn her on 50% chance of success.

In the sense of subjective evaluation of breast firmness improvement and enlargement the hormonal contraception has a favourable influence on the effect of ERDIC. 80% of women using HC after 9 months subjectively evaluated a positive influence of ERDIC on breast enlargement and firmness improvement. In contrast to it combination of HC and placebo had the effect of larger and firmer breasts after 9 months only in 25%.

Women not using HC evaluated the positive breast enlargement during ERDIC use in 40% (with placebo 0%) and firmness and elasticity improvement with 60% (with placebo 0%). The results of the study prove the significant effect of the ERDIC preparation on women breasts enhancement and it cannot be attached only to the effect of hormonal contraception.

Administration of the preparation should last at least 4 months, because after 2 months of use the effects of Erdic just start to make themselves felt and only a small percentage of volunteers feel the firmness and enlargement of breasts. It seems to us that the optimum period of use is 6 months and with regard to the fact that further use of the preparation already did not lead to substantial bust changes after 6 months it is possible to change over to preserving dosage as recommended by the producer. The use of the Erdic preparation had no negative effects on the monitored laboratory parameters during the 9 months - blood count, liver tests, and at the same time the cholesterol level registered a mild reduction and there was no significant influence on the weight of the volunteers. No adverse reactions of gastrointestinal tract during the use of preparation were registered and the preparation was very well tolerated.