ACARBOSE

A biotecnologia na inibição competitiva da diabetes

http://aformulabr.com.br/qrcode/acarboseafv01.pdf
ACARBOSE
A biotecnologia no inibição competitiva da diabetes

DESCRIPAÇÕES
A Acarbose é um inibidor de α-glicosidase obtida por biotecnologia dos filtrados de cultivo de actinomicetos como metabolismo secundário, melhorando a sensibilidade a insulina e reduzindo a hiperglycemia pós-prandial auxiliando no controle da diabetes mellitus tipo II.

MECANISMO DE AÇÃO
A Acarbose funciona como um inibidor competitivo e reversível da α-amilase pancreática e das enzimas hidrolisantes da α-glicosidase ligada à membrana intestinal, sem aumentar a secreção de insulina, mas retardando a digestão de carboidratos complexos e dissacarídeos, e consequentemente diminuindo a absorção de glicose, reduzindo inclusive a hiperglycemia pós-prandial.

INDICAÇÕES
- Tratamento da diabetes melittus tipo II;
- Tratamento da pré-diabetes.

DOSE USUAL
Recomendação oral, 25 mg como dose inicial 3 vezes ao dia, e na manutenção com dose de 50 a 100 mg 3 vezes ao dia.

SUGESTÕES DE FÓRMULAS

<table>
<thead>
<tr>
<th>Acarbose</th>
<th>50 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shakeasy® qsp</td>
<td>1 dose</td>
</tr>
</tbody>
</table>

Modo de uso: 1 dose dissolvida em 250ml de água gelada, 3 vezes ao dia.
Indicação: pré-diabetes.

<table>
<thead>
<tr>
<th>Acarbose</th>
<th>50 mg</th>
</tr>
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<tbody>
<tr>
<td>Metformina</td>
<td>500 mg</td>
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Modo de uso: 1 dose, 3 vezes ao dia.
Indicações: diabetes mellitus tipo II, pré-diabetes.

PRINCIPAIS REFERÊNCIAS

The effect of acarbose on insulin resistance in obese hypertensive subjects with normal glucose tolerance: a randomized controlled study.

AIM: Acarbose, a glucose oxidase inhibitor, delays the absorption of glucose thus reducing post-prandial blood glucose level, haemoglobin A1c (HbA1c) and insulin resistance in patients with diabetes mellitus and in subjects with impaired glucose tolerance. The effect of acarbose in subjects with normal glucose tolerance (NGT) has hitherto not been examined. The aim of the present study was to examine the effect of acarbose in obese hypertensive subjects with NGT. METHODS: A double-blinded, parallel group study was performed on 56 male subjects with hypertension, body mass index (BMI) 27-35 kg/m2, fasting blood glucose < or =6 mmol/l and a normal oral glucose tolerance test. Blood pressure, HbA1c, lipid profile and insulin resistance [homeostasis model assessment (HOMA) index] were determined initially and following 24 weeks of acarbose, 150 mg/day or placebo. The primary end point was the change in insulin resistance. Anti-hypertensive treatment and diet were kept constant during the study. RESULTS: Insulin resistance decreased in acarbose users but not on placebo. HOMA index declined from 5.36 +/- 1.7 to 4.10 +/- 1.6 (p=0.001) on acarbose, the corresponding values on placebo were 5.44 +/- 1.9 and 5.53 +/- 1.7. A decrease in serum triglyceride values (2.16 +/- 0.16 mmol/l to 1.76 +/- 0.15 mmol/l, p=0.02) took place on acarbose with no change on placebo. There was no change in BMI, low-density lipoprotein or high-density lipoprotein values in either group. Blood pressure declined equally in both the groups, probably due to better patient compliance. CONCLUSIONS: Acarbose may reduce insulin resistance and triglycerides also in obese hypertensive subjects with normal glucose tolerance.

Acarbose plus metformin fixed-dose combination outperforms acarbose monotherapy for type 2 diabetes.

AIM: To compare the efficacy and safety of acarbose plus metformin fixed-dose combination (FDC) versus acarbose monotherapy for type 2 diabetes (T2D). METHODS: Eligible T2D patients undergoing treatment with diet control only or oral antidiabetic medications were run-in on acarbose 50mg thrice-daily for 4 weeks, then randomised either to continue this monotherapy, or to acarbose 50mg plus metformin hydrochloride 500mg FDC (acarbose/metformin FDC), each thrice-daily for 16 weeks. RESULTS: Acarbose/metformin FDC therapy significantly reduced HbA1c, fasting plasma glucose (FPG), and postprandial plasma glucose (PPG) from baseline (all p<0.0001) with superior efficacy compared with acarbose monotherapy (between-group differences; HbA1c -1.35%; FPG -29.5mg/dl; PPG -41.6mg/dl; all p<0.0001). Proportionally more patients treated with acarbose/metformin FDC achieved HbA1c <7.0% (47.8% vs. 10.7%, p<0.0001). Both treatments reduced bodyweight (p<0.0001), with a significant between-group difference (-0.6kg, p<0.01) favouring acarbose/metformin FDC. Hypoglycaemia was not reported with either treatment, and the incidence of other adverse events did not differ significantly between the groups. CONCLUSIONS: Compared with acarbose monotherapy, acarbose/metformin FDC has superior antihyperglycaemic efficacy, brings proportionally more T2D patients to HbA1c goal, and further reduces bodyweight. Acarbose/metformin FDC is well-tolerated without significant risk of hypoglycaemia and is a potentially advantageous therapy for T2D.
A prospective, parallel group, open-labeled, comparative, multi-centric, active controlled study to evaluate the safety, tolerability and benefits of fixed dose combination of acarbose and metformin versus metformin alone in type 2 diabetes.

OBJECTIVE: The present study was a prospective, parallel group, open-labeled, comparative, multicentric, active controlled study to evaluate the safety, tolerability and benefits of fixed dose combination of acarbose and metformin versus metformin alone in type 2 diabetic patients. METHODS: A total of 229 patients with type 2 diabetes were enrolled at 5 medical centers across India. They received either acarbose (50 mg) + metformin (500 mg) bid/tid (n=115) or metformin monotherapy (500 mg) bid/ tid (n=114) for 12 weeks. Primary objective was to evaluate safety and tolerability based on the adverse events reported. Secondary objective was efficacy assessment based on changes in fasting, post prandial blood glucose and HbA1c values. RESULTS: In the acarbose + metformin group 10 patients reported 14 adverse events while in metformin group 9 patients reported 10 adverse events. No patient reported any serious adverse event or was withdraw from study because of adverse events. In the acarbose plus metformin group fasting blood glucose (FBG) decreased from a baseline of 158.85 +/- 18.14 mg/dl to 113.55 +/- 19.38 mg/dl (p < 0.0001) (decrease of 45.30 +/- 15.30 mg/dl) at 12 weeks, while in the metformin group fasting blood glucose decreased from a baseline of 158.31 +/- 26.53 mg/dl to 130.55 +/- 28.31 mg/dl (p < 0.0001) (decrease of 27.76 +/- 22.91 mg/dl) at 12 weeks. In the acarbose plus metformin group postprandial blood glucose (PPBG) decreased from a baseline of 264.65 +/- 34.03 mg/dl to 173.22 +/- 31.40 mg/dl (p < 0.0001) (decrease of 91.43 +/- 28.65 mg/dl) at 12 weeks, while in the metformin group PPBG decreased from a baseline of 253.56 +/- 36.28 mg/dl to 205.36 +/- 32.72 mg/dl (p < 0.0001) (decrease of 48.20 +/- 32.72 mg/dl) at 12 weeks. In the acarbose plus metformin group glycosylated haemoglobin (HbA1c) decreased from a baseline of 9.47 +/- 0.69% to 7.71 +/- 0.85% (p < 0.0001) (% decrease of 1.76 +/- 1.11) at 12 weeks, while in the metformin group HbA1c decreased from a baseline of 9.32 +/- 0.65% to 8.26 +/- 0.68% (p < 0.0001) (% decrease of 1.06 +/- 0.66) at 12 weeks. The combination of acarbose and metformin was found to be significantly superior in lowering the FBC (p < 0.0001), PPBG (p < 0.0001) and HbA1c (p < 0.0001) at 12 weeks as compared to metformin monotherapy. CONCLUSIONS: Fixed dose combination of acarbose and metformin was well tolerated and it was superior to metformin monotherapy in controlling FBG, PPBG and HbA1C levels in Type 2 Diabetes Mellitus patients.

REFERÊNCIAS


