120 x 200mm

Vylinta
(Linagliptin)

Highnoon

COMPOSITION
Each film-coated tablet contains: Linagliptin 5mg

DESCRIPTION
Vylinta tablets for oral use contains linagliptin, an inhibitor of the DPP-4 enzyme.

MECHANISM OF ACTION
Linagliptin is an inhibitor of DPP-4, an enzyme that degrades the incretin hormones glucagon-like peptide-1 (GLP-1) and glucose-dependent insulinotropic polypeptide (GIP). Thus, linagliptin increases the concentrations of active incretin hormones, stimulating the release of insulin in a glucose-dependent manner and decreasing the levels of glucagon in the circulation. Both incretin hormones are involved in the physiological regulation of glucose homeostasis. Incretin hormones are secreted at a low basal level throughout the day and levels rise immediately after meal intake. GLP-1 and GIP increase insulin biosynthesis and secretion from pancreatic beta cells in the presence of normal and elevated blood glucose levels. Furthermore, GLP-1 also reduces glucagon secretion from pancreatic alpha cells, resulting in a reduction in hepatic glucose output.

PHARMACOKINETICS
Linagliptin has nonlinear pharmacokinetics because of high affinity saturable binding to dipeptidylpeptidase-4 (DPP-4) in plasma and tissue. It is rapidly absorbed from gastrointestinal tract and peak plasma concentration occurs within about 1.5 hours. The absolute bioavailability of linagliptin is about 30%. The mean apparent volume of distribution after an intravenous dose is 1110 litres indicating that linagliptin is extensively distributed to the tissues. Plasma protein binding of linagliptin is concentration dependent; at low concentration it is 99% bound, but at higher concentrations when DPP-4 is fully saturated, 70 to 80% is bound to other plasma proteins and 20 to 30% is unbound.

After multiple oral doses, linagliptin has an accumulation half-life of about 12 hours. Linagliptin is not extensively metabolized. It undergoes biphasic (or possibly triphasic) elimination and at a steady rate has a terminal half-life of more than 100 hours. About 80% is eliminated in the faeces and 5% in the urine.

INDICATIONS AND USAGE
It is indicated as an adjunct to diet and exercise to improve glycaemic control in adults with type 2 diabetes mellitus.

It is not recommended in patients with type 1 diabetes mellitus as it would not be effective.

DOSAGE AND ADMINISTRATION
The recommended dosage of Vylinta tablet is 5 mg once daily,

CONTRAINDICATIONS
It is contraindicated in patients with a hypersensitivity to linagliptin, or any of the excipients. Hypersensitivity reactions includes (such as anaphylaxis, angioedema, exfoliative skin conditions, urticaria, or bronchial hyperreactivity).

ADVERSE REACTIONS
The reported adverse events of linagliptin are; pancreatitis, hypoglycemia with concomitant use with insulin and insulin secretagogues, hypersensitivity reactions, severe and disabling arthralgia, bullous pemphigoid, heart failure, nasopharyngitis, diarrhoea, cough, urinary tract infection, hypertriglyceridemia, weight increase, constipation, hypersensitivity reactions (angioedema, urticaria, localized exfoliative skin conditions, or bronchial hyperactivity), myalgia, backpain, arthralgia, upper respiratory tract infection, headache, pai in the extremity, hypoglycaemia, increase uric acid, amylase and lipase, mouth ulceration, stomatitis, rhabdomyolysis and rash.

DRUG INTERACTIONS
Insulin and insulin secretagogues are known to cause hypoglycemia. The risk of hypoglycemia is increased when linagliptin is used in combination with an insulin secretagogue (e.g., sulfonylurea) or insulin. Coadministration of linagliptin with an insulin secretagogue (e.g., sulfonylurea) or insulin may require lower dosages of the insulin secretagogue or insulin to reduce the risk of hypoglycemia.
Inducers of P-glycoprotein or CYP3A4 Enzymes: Rifampin decreased linagliptin exposure, suggesting that the efficacy of linagliptin may be reduced when administered in combination with a strong P-gp or CYP3A4 inducer. Therefore, use of alternative treatments is strongly recommended when linagliptin is to be administered with a strong P-gp or CYP3A4 inducer.

WARNINGS AND PRECAUTIONS
- Acute pancreatitis, including fatal pancreatitis, has been reported in patients treated with linagliptin. Take careful notice of potential signs and symptoms of pancreatitis. If pancreatitis is suspected, promptly discontinue linagliptin and initiate appropriate management. It is unknown whether patients with a history of pancreatitis are at increased risk for the development of pancreatitis while using linagliptin.
- Insulin and insulin secretagogues are known to cause hypoglycaemia. The risk of hypoglycaemia is increased when linagliptin is used with an insulin secretagogue (e.g., sulfonylurea) or insulin. The use of linagliptin in combination with insulin in subjects with severe renal impairment was associated with a higher rate of hypoglycemia. Therefore, a lower dosage of the insulin secretagogue or insulin may be required to reduce the risk of hypoglycemia when used in combination with linagliptin.
- There have been reports of serious hypersensitivity reactions in patients treated with linagliptin. These reactions include anaphylaxis, angioedema, and exfoliative skin conditions. Onset of these reactions occurred predominantly within the first 3 months after initiation of treatment with linagliptin, with some reports occurring after the first dose. If a serious hypersensitivity reaction is suspected, discontinue linagliptin, assess for other potential causes for the event, and institute alternative treatment for diabetes mellitus. Angioedema has also been reported with other dipeptidyl peptidase-4 (DPP-4) inhibitors. Use caution in a patient with a history of angioedema to another DPP-4 inhibitor because it is unknown whether such patients will be predisposed to angioedema with linagliptin.
- There have been reports of severe and disabling arthralgia in patients taking linagliptin. The time to onset of symptoms following initiation of drug therapy varied from one day to years. Patients experienced relief of symptoms upon discontinuation of the medication. A subset of patients experienced a recurrence of symptoms when restarting the same drug or a different DPP-4 inhibitor. Consider DPP-4 inhibitors as a possible cause for severe joint pain and discontinue drug if appropriate.
- Bullous pemphigoid has been reported in patients treated with linagliptin. Cases of bullous pemphigoid requiring hospitalization have been reported with DPP-4 inhibitor use. Patients typically recovered with topical or systemic immunosuppressive treatment and discontinuation of the DPP-4 inhibitor. Tell patients to report development of blisters or erosions while receiving linagliptin. If bullous pemphigoid is suspected, linagliptin should be discontinued and referral to a dermatologist should be considered for diagnosis and appropriate treatment.
- An association between DPP-4 inhibitor treatment and heart failure has been observed for two other members of the DPP-4 inhibitor class. Consider the risks and benefits of this combination prior to initiating treatment in patients at risk for heart failure, such as those with a prior history of heart failure and a history of renal impairment and observe these patients for signs and symptoms of heart failure during therapy. Advise patients of the characteristic symptoms of heart failure and to immediately report such symptoms. If heart failure develops, evaluate and manage according to current standards of care and consider discontinuation of linagliptin.
- It has not been studied in patients with a history of pancreatitis. It is unknown whether patients with a history of pancreatitis are at an increased risk for the development of pancreatitis while using linagliptin.

USE IN SPECIFIC POPULATIONS
Pregnancy
The limited data with linagliptin use in pregnant women are not sufficient to inform of drug associated risk for major birth defects and miscarriage. There are risks to the mother and fetus associated with poorly controlled diabetes in pregnancy.
Poorly controlled diabetes in pregnancy increases the maternal risk for diabetic ketoacidosis, preeclampsia, spontaneous abortions, preterm delivery, and delivery complications. Poorly controlled diabetes increases the fetal risk for major birth defects, stillbirth, and macrosomia related morbidity. Linagliptin crosses the placenta into the fetus following oral dosing in pregnant rats and rabbits. As a precautionary measure it is preferable to avoid the use of this combination during pregnancy.

Breast-feeding
There is no information regarding the presence of linagliptin in human milk, the effects on the breastfed infant, or the effects on milk production. However, linagliptin is present in rat milk. Therefore, the developmental and health benefits of breastfeeding should be considered along with the mother's clinical need for linagliptin and any potential adverse effects on the breastfed child from linagliptin or from the underlying maternal condition.

Pediatric Use
The safety and effectiveness of linagliptin have not been established in pediatric patients.

Geriatric Use
No overall differences in safety or effectiveness of linagliptin were observed between geriatric patients and younger adult patients.

Renal Impairment
No dosage adjustment is recommended for patients with renal impairment.

Hepatic Impairment
No dose adjustment is recommended for patients with hepatic impairment.

OVERDOSAGE
Removal of linagliptin by haemodialysis or peritoneal dialysis is unlikely.

DOSAGE AND INSTRUCTIONS
To be sold and used on the prescription of a registered medical practitioner only. Keep out of reach of children. Do not store above 30°C. Keep in a dry place. Protect from light.

PRESENTATION
Vylinta 5mg Tablets:
Alu. Alu. Blister Pack of 2 x 7's.

Product Contains Lactose

وائلنٹا
(لینا گلیپٹن)

خوراک و ہدایات:
صرف مستند ڈاکٹر کے نسخہ کے مطابق ہی دوا فروخت اور استعمال کی جائے۔
بچوں کی پہنچ سے دور رکھیں۔ 30°C سے زیادہ درجہ حرارت پر نہ رکھیں۔
خشک جگہ پر رکھیں۔ روشنی سے بچائیں۔

Manufactured by
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120 x 200mm