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VISION

To emerge as one of the premier pharmacy colleges in the country and produce pharmacy professional of global standards.

MISSION

- To deliver quality academic programs in Pharmacy and empower the students to meet industrial standards.
- To build student community with high ethical standards to undertake R&D in thrust areas of national and international standards.
- To extend viable outreach programs for the health care need of the society.
- To develop industry institute interaction and foster entrepreneurial spirit among the graduates.

A study of outcome following stroke Intervention in a tertiary care hospital

Dr Srishya M

Objective:

The primary objective of this study was to compare the safety and efficacy of intervention and non-intervention treatment in acute ischemic stroke patients and the secondary outcome was to evaluate the neurological outcome after 90 days using NIHSS, Rankin scale and also to measure the degree of disability among stroke patients using MRS.

Study Design:

Prospective and Retrospective study

Study Site:

The study was conducted at the department of neurology at Kovai Medical Centre and Hospital, Coimbatore.

Procedure:

A total of 100 cases were collected from the ward as well as the medical record department (MRD).A data collection form was prepared, which included the demographic data of patients, time of onset of stroke , neurological assessment , bleeding aspects , CT aspects and diagnosis of the patient. The data was collected in the data collection form and recorded.

Results:

A total of 100 patients were included in this study out of which 50 come under intervention group and 50 come under non intervention group. Among the intervention group 78% were male and 22% were female, and among the non intervention group 76%were male and 24% were female. Patients under the age group of 41-50 were more prone to develop acute ischemic stroke followed by patients under the age group of 51 -60 and 71-80 years. Patients in the intervention group have reduced disability and improved clinical outcomes when compared to non intervention group and also patients have shown good clinical outcomes on treatment with alteplase and mechanical thrombectomy when compared to alteplase alone. Graph 3 shows that a prominent onset of stroke distribution of 2 hours was seen in 24% of patients in intervention group, whereas graph 4 shows 66% of patients in non-intervention group.

Figure 1:- Onset of Stroke Distribution in Ischemic Stroke (n=50)

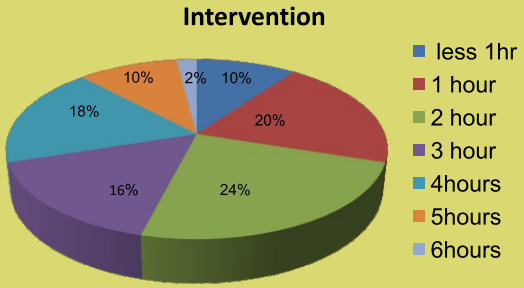
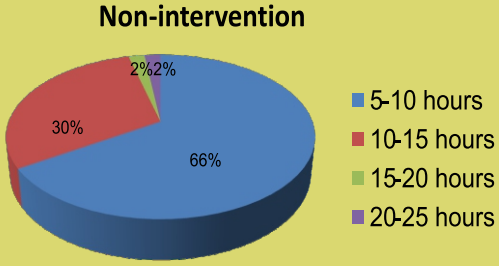


Figure 2: Onset of Stroke Distribution in Ischemic Stroke (n=50)



Conclusion:

Intervention treatment in more safer and effective than non intervention treatment in acute ischemic stroke. Patients who underwent intervention treatment showed increased clinical outcomes and reduced disability than patients who underwent non intervention treatment.

Reference

1. Jena SS, Jena M, Mishra S, Meher BR. Utilization pattern of different drugs in different type of stroke in a tertiary care hospital. International Journal of Pharmaceutical Sciences Review and Research. 2018; 49(2):85-90.
2. Kuriakose C, Shifafiya N, Kumar S. Sekhar V. To evaluate the prevalence and drug prescribing trends in stroke patients, International Journal Of chemical And Pharmaceutical Sciences. 2014; 5(4):22-27.
3. Bansal S, Sangha KS, Khatri P, et al. Drug treatment of acute ishemic stroke. American Journal of heart Association. 2013; 13(1).doi:10.1007/s40256-013-0007-6

A Case Report On Steroid Induced Diabetes Mellitus

Sujitha S, Priyanka S, Pharm D Interns

Introduction:

A steroid is a biologically active organic compound having immunosuppressive action in living organism. Different classification of steroids is available in pharmaceutical industry. Steroids are mostly suggested by clinician to the patients for the reduction of inflammation caused by immune system. Steroid can cause elevation of patient blood sugar level. Those who take steroids for a longer period of time are more susceptible to develop diabetes mellitus. The most commonly used steroids are prednisone and cortisone. These drugs promote glucose production in liver and reduce the sensitivity of cells to insulin.

Case Report:

A 45 year old woman was admitted to a hospital presented with bilateral lower limb edema from 1 month, and h/o hematuria, frothy urine. She was diagnosed with diabetes mellitus, (blood glucose level was 209mg/dl) who had a history of nephrotic syndrome, hypertension, hypothyroidism. Patient undergone renal biopsy showed IgA nephropathy with 2 fibrocellular crescent patient given 3 doses of IV methyl prednisolone followed by 5 doses of IV cyclophosphamide for every one month and along with oral wysolone of 40mg. To treat nephrotic syndrome the patient was treated with IV methylprednisolone of 3 doses along with oral wysolone of 40mg. On adhering to the treatment continuously patient raise in blood glucose levels after the 2 dose of IV methylpredisolone along with oral wysolone, Suspected to be having steroid induced diabetes mellitus.

Discussion:

Steroid- induced diabetes mellitus is an important clinical finding that, if recognized early, can be treated effectively. The diabetogenic effect of glucocorticoids is said to be determined by dose, duration of administration and type of steroid. We propose fasting blood sugar and oral glucose tolerance teat as a part of pretreatment investigation during the evaluation as well as in the course of management of middle aged and elderly patients on steroids. A proper understanding of the mechanisms involved in steroid hyperglycemia is needed, since this will allow early detection and effective treatment in these patients. In most cases insulin must be the treatment of choice, especially in cases of serum glucose > 200 mg/dl. Nevertheless an individualized approach must be taken in each patient in order to consider lifestyle modifications and oral hypoglycemic drugs as alternative therapy.

References:

1. G. Pagano, P. Cavallo-Perin, M. Cassader et al., (1983), An in vivo and in vitro study of the mechanism of prednisone-induced insulin resistance in healthy subjects, Journal of Clinical Investigation.

2. D.L.Trence,(2003), Management of patients on chronic glucocorticoid therapy: an endocrine perspective, Primary Care.

DRUG PROFILE - NEXLIZET A Newly Approved Statin Therapy

T. Saranya, Pharm .D intern

Brand name : NEXLIZET
Generic name : Bempedoic acid and Ezetimibe
Revised date : 2/2/2020

Dosage form and Strength:

One tablet contains 180 mg of bempedoic acid / 10 mg of ezetimibe

Indications:

It is indicated as an adjunct to diet and maximally tolerated statin therapy for the treatment of adults with heterozygous familial hypercholesterolemia or atherosclerotic cardiovascular disease with lowering of LDL-C

Mechanism of action:

Bempedoic acid is an adenosine triphosphate – citrate lyase inhibitor that lowers LDL-C by inhibition of cholesterol synthesis in liver.Ezetimibe reduces blood cholesterol by inhibiting the absorption of cholesterol by small intestine through sterol transporter Niemann- pick C1- like 1 (NPC1L1).

Contraindications:

Hypersensitive people with allergic reactions.

Precautions:

Hyperuricemia, Tendon rupture, Gout, Atrial fibrillation, benign prostate hyperplasia.

Manufacturing company:

Piramal Pharma solutions

Molecular formula: $C_{19}H_{36}O_5$

Storage:

Store at 20 to 25^{0}c. protect from extreme heat and humidity.

Warnings:

Hyperuricemia: nexletol inhibits renal tubular OAT 2 and may increase blood uric acid levels. Elevated blood uric acid may lead to the development of gout.

Tendon rupture:

It is associated with the increased risk of tendon rupture injury. Patient if expire the sign like pain, inflammation, joint pain, swelling, tendinitis.

Adverse reactions:

Upper respiratory tract infection, muscle spasm, hyper uricemia, back pain, abdominal pain, bronchitis, anemia, and pain in extremity, elevated liver enzymes.

Drug interactions:

Statin: concomitant use of nexletol with statin causes an increase in statin concentration and increase the risk of statin related myopathy. Avoid concomitant use with statin greater than 20 mg.

Cytochrome p450 substrates: Bempedoic acids as well as its active metabolite and glucuronide forms are not metabolized and don't interact with Cytochrome P 450.

Probenecid: administration of bempedoic acid with Probenecid cause increase in levels of bempedoic but these elevations are not clinically meaningful and do not impact dosing recommendations.

PHARMACOKINETICS:

Absorption:

Indicate that bempedoic acid is absorbed with median time to maximum concentration of 3.5 hours when administered.

Distribution:

Apparent volume of distribution was 18 L. Plasma proteins binding to glucuronide and does not partition into blood cells.

Elimination:

Clearance was 11.2mL/min after once daily dosing. Half – life in humans was 21 hours.

Metabolism: Primary route of elimination was acyl glucuronide. It is also reversibly converted to an active metabolite (ESP15228) based on aldo – keto reductase activity observed in vitro from human liver. Both compounds are converted to inactive glucuronide conjugates.

Excretion:

70% of the total dose was recovered in urine, and 30% was recovered in feces. Less than 5% of the administered dose was excreted as unchanged in feces and urine combined.

Pharmacodynamics:

Administration of bempedoic acid in combination with maximally tolerated statins, with or without other lipid modifying agents , decreases LDL-C, non –high density lipoprotein cholesterol (non-HDL-C), apolipoprotein (apo B) and total cholesterol in patients with hyperlipidemia.

Departmental Activities in February- 2020

Activities	PatientCounselling	Drug Information services	Adverse Drug Reactions	Medication Errors
Number	762	65	02	07

Perfect Clicks

Pharm D Graduation Day Celebrations with gracious presence of Dr Vengamma, Director cum VC SVIMS

2nd Tech VC Conclave at JNTUA

AP 2nd Senior Ball Badminton Championship

Campus Placement by Divis Laboratories

B Pharm Final Year Educational Tour

Dr M Niranjan Babu receiving Chathrapathi Award

Appreciation of GPAT Rankers