

An Official Publication of Department of Pharmacy Practice
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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 RETROSPECTIVE STUDY ON ADVERSE DRUG REACTIONS IN POST RENAL TRANSPLANT RECIPIENTS IN A TERTIARY CARE TEACHING HOSPITAL

Dr S Divya



Background

Renal transplant recipients should receive immunosuppressants to prevent graft rejection. By suppressing the immune response of the recipient, it increases the risk of opportunistic infections.

As post transplantation requires maintenance immunosuppression, there is a chance for ADRs associated with the therapeutic regimens. So we aimed to study various immunosuppressants and the adverse drug reactions associated with it.

Methodology

A Retrospective Observational Study was carried out and a total number of patients who underwent renal transplantation from the year 2000 including men and women with all age groups were included in the study. Adverse drug reactions associated with Induction therapy and Immunosuppressive therapy were studied. The nature of adverse drug reactions was collected and recorded in suspected adverse drug reaction reporting form designed by Indian pharmacopoeia commission under Pharmacovigilance programme of India. The further data is assessed and analysed in the form of numbers and percentages using Microsoft excel sheet.

Results

Out of 87 renal transplants, 31 received induction therapy i.e., Basiliximab (87.09%), Anti Thymocyte Globulin (9.67%) and Combination of both basiliximab and Anti Thymocyte Globulin (3.22%). The most common triple regimen: Tacrolimus plus Mycophenolate mofetil plus Prednisolone was given to 60 patients (68.96%) and remaining are listed below in Table:1. Among 87 renal transplants, 48 were experienced 77 ADRs. Amongst the 77 ADRs, cytomegalovirus infection (15.58%) was the most frequent followed by NODAT (14.28%) and Diarrhoea (6.49%) pancytopenia (6.49%) and remaining ADRs are listed in Table:2.

Table 1: Immunosuppressant Drugs Used In Renal Transplants

Type of therapy	Immunosuppressant drugs	No. of Patients	Percentage
Induction therapy	Basiliximab	27	87.09%
	Anti-thymocyte globulin	3	9.67%
	Basiliximab+ATG	1	3.22%
Maintenance therapy	Tacrolimus+Prednisolone+MMF	60	68.96%
	Cyclosporine+Prednisolone+MMF	09	10.34%
	Everolimus+Prednisolone+MMF	05	5.74%
	Everolimus+Prednisolone+Tacrolimus	03	3.44%
	Azathioprine+Prednisolone	03	3.44%
	Azathioprine+Prednisolone+Tacrolimus	03	3.44%
	Azathioprine+Prednisolone+Cyclosporine	01	1.44%
	Sirolimus+Prednisolone	01	1.44%
	Sirolimus+Prednisolone+MMF	01	1.44%
	Tacrolimus+Prednisolone	01	1.44%

Table 2: Most common ADRs

Adverse drug reaction	Suspected drug	Frequency	Percentage
Cytomegalo virus infection	Tacrolimus+Mycophenolate mofetil+Prednisolone	12	15.58%
NODAT	Tacrolimus	11	14.28%
Diarrhoea	Tacrolimus+Mycophenolate mofetil	05	6.49%
Pancytopenia	Prednisolone	05	6.49%
Anaemia	Everolimus	04	5.19%
Leucopenia	Azathioprine	03	3.89%
Hyponatremia	Tacrolimus+prednisolone	02	2.59%
Raised renal parameters	Anti-thymocyte globulin	02	2.59%

Conclusion:

Immunosuppression is recommended to reduce the rejection after transplantation. So patients are at higher risk to get experienced with adverse drug reactions. Hence patients should be monitored throughout the post transplant treatment period, to reduce the incidence of ADRs such that the term patient safety is the utmost priority can be justified.

A EXOTIC CASE REPORT ON RECURRENT CEREBROVASCULAR ACCIDENT (CVA) WITH MOYAMOYA SYNDROME

T Saranya, Pharm D Internee



Introduction:

Moyamoya disease is a exotic, escalating cerebrovascular disorder caused by occlusion of arteries at the base of the brain in an area called the basal ganglia. “Moyamoya” means “puff of smoke” in Japanese and depict appearance like a interweave of mini blood vessels formed to recompense for the blockage. The first symptom of Moyamoya disease is stroke, or recurrent transient ischemic attacks (TIA, commonly referred to as “mini-strokes”) periodically consorted by muscular weakness or paralysis of one side of the body, or seizures. CT Angiography (MRA) is the investigation of choice. The incidence of moyamoya disease is highest in Japan. The prevalence and incidence of the disorder there has been reported to be 3.16 cases and 0.35 cases per 100,000 people, respectively.

Case Report:

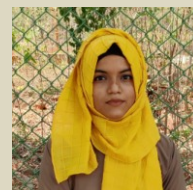
We present a case of 45 year old male patient who was presented to emergency department and was diagnosed as recurrent CVA with Moyamoya disease on CT Angiogram. A 45-year-old female presented in emergency with recurrent strokes (AIS) associated with facial muscle weakness causing facial asymmetry and difficulty in chewing. he also had difficulty in doing daily light activities such as climbing up of stairs, getting up from supine position, wearing slippers. There was history of hemiparesis partially recovered followed by altered mental status. On physical examination, general condition of the patient was stable, conscious, alert and oriented to time, place and person with apraxia. On neurological examination the patient had UMN type of left facial nerve palsy and left hemiparesis with ataxia. Equal sensation was noted in bilateral upper and lower extremities. The bulk and power decreased with facial atrophy of left side along with the atrophy of distal muscles on left side of both upper and lower limb. Cardiovascular and rest of the systemic examination seemed to be within normal limits. Results of complete blood cell count showed normocytic anaemia with normal leukocytes and platelet counts along with coagulation profile being normal. Specific tests for hypercoagulability such as APLA, ANA antibodies, basal homocysteine levels were also assessed, the results for which were normal. An EEG was suggestive of bilateral parietal occipital slowing.

Discussion & Conclusion:

Arteriopathy refers to disorders of the cerebral arteries and is a leading cause of childhood AIS. One such entity is Moya moya disease (a Japanese word meaning a puff of smoke drifting in air). It is a progressive disorder associated with occlusion of the internal carotid artery at the terminal bifurcation together with abnormalities of anterior and middle cerebral arteries. These changes are bilateral. The presence of abnormal blood vessels at the base of the brain on MRA, give a hazy like puff of cigarette smoke drifting in air. The management of Moyamoya is multifaceted. It includes antithrombotic strategies and hyper acute neuroprotective strategies essential to prevent the progressive ischemia. Antiplatelet drugs help to prevent future ischemic strokes as they inhibit platelet function and its use is considered empirical. Aspirin is effective if given within 48 hours of stroke or TIA at a dose of 50-325 mg/day orally then 75-100 mg/day per orally. Neuro protective strategies include reduction of intracranial pressure by reducing cerebral blood flow and by overcoming the underlying triggering factors.⁸ Long term prevention is revascularisation surgery. Surgical procedures are classified into three categories, direct bypassing including superficial temporal artery to MCA (STA-MCA).

FOTIVDA (TIVOZANIB) - A NEWLY APPROVED DRUG FOR RENAL CELL CARCINOMA

P Humera Khanam, Pharm D IV Yr



Brand Name : FOTIVDA
Generic Name : Tivozanib
Molecular Formula : $C_{22}H_{19}ClN_4O_5 \cdot HCl \cdot H_2O$
Manufacturing Company : Catalent CTS, INC. Kansas City, MO 64137.

Dosage Form And Strength :

Recommended dosage is 1.34mg taken orally once daily for 21 days on treatment followed by 7 days, off treatment for a 28 days cycle.

Indication:

FOTIVDA is indicated for the treatment of adult patients with relapsed or refractory advanced renal cell carcinoma.

Mechanism of Action:

Tivozanib is a tyrosine kinase, which minimize the phosphorylation of vascular endothelial growth factor receptor [VEGFR]-1 , VEGFR-2 and VEGFR-3 , Finally, inhibits angiogenesis, vascular permeability and tumor cell types including human cell carcinoma.

Adverse Drug Reaction:

Hypertensive crisis , cardiac failure , cardiac ischemia , arterial thromboembolism , venous thromboembolism , hemorrhagic events , proteinuria , thyroid dysfunction , risk of impaired wound healing , reversible posterior leukoencephalopathy syndrome (RPLS)

Drug Interaction:

Strong CYP3A inducers like rifampin decreases the tivozanib exposure. Thereby leads to decreased anti tumor activity

PHARMACOKINETICS :

Absorption : No clinical significant difference observed following administration of high fat meal.

Distribution : Apparent volume of distribution is 123L.

Protein binding of tivozanib is greater than or equal to 99%, primarily to albumin.

Metabolism : Tivozanib is metabolised by CYP3A4.

Excretion : 79% feces and 12% through urine

Departmental Activities January-2021:

No of Patients Screened	Drug Information Queries	Adverse Drug Reactions	Medication Errors	No of Prescriptions Audited
769	24	04	06	851

Perfect Click



Dr M Niranjana Babu Sir, Birth Day Celebrations in the campus



Republic Day Celebrations in the College Campus