

ROLE OF THERAPEUTIC PLASMA EXCHANGE IN DIFFERENT CLINICAL CONDITIONS IN TERTIARY CENTER

Dr. Hirenkumar Makwana Aka Darji, Dr. Mamta Shah, Dr. Nidhi Bhatnagar, Dr. Sangita Shah, Dr. Rahul Rajvanshi, Dr. Kamini Gupta.

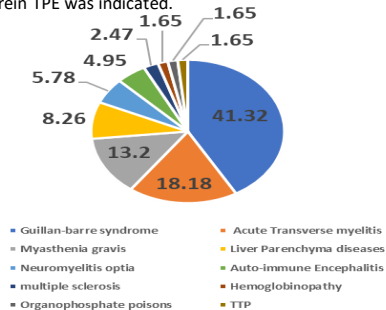
Department of IHBT,B J Medical Collage and Civil hospital, Ahmedabad

INTRODUCTION: Therapeutic plasma exchange (TPE) is a procedure that removes plasma from the blood and replace with a replacement fluid such as a fresh frozen plasma or albumin. It removes auto-antibodies, pathogenic substance, lipoproteins, Cryoglobulins from the plasma and key role in management of various diseases. Early diagnosis of diseases and starting of therapeutic plasma exchange may enhance fast recovery. A typical goal is to exchange 1-1.5 times estimated plasma volume as per ASFA guidelines.

AIM/OBJECTIVE: The aim of the study is to determine effects of the therapeutic plasma exchange on the patients with the different diagnosis.

METHODS: A retrospective observational study was conducted of all the TPE procedures done in a period of 1 year (March 2023 to February 2024) in tertiary care center. Therapeutic plasma exchange procedure were performed using automated Cell Separator like Spectra Optia and COM-TEC, F.kabi and Amicus. The data was analyzed for the various indications in which TPE was advised.

RESULTS: During the study period procedure of TPE performed on 121 patients out of which The most common indication for TPE was Guillen-barre syndrome (50,41.32%), followed by Acute Transverse myelitis(22,18.18%), Myasthenia gravis(16,13.2%), Liver Parenchyma diseases(10,8.26%), Neuromyelitis optia (7,5.78%), Auto-immune Encephalitis(6,4.95%), multiple sclerosis(3,2.47%),Hemoglobinopathy(2,1.65%), Organophosphate poisoning(2,1.65%), TTP(2,1.65%). Significant clinical benefits were noted in all patients wherein TPE was indicated.



CONCLUSION: Therapeutic plasma exchange is considered as an effective immune-modulatory treatment. TPE hold strong evidence in improvement of neurological disorders, For the better outcome the clinicians should advice plasmapheresis at an earlier stage before irreversible damage of the diseases as per ASFA guidelines.

DISCUSSION: Therapeutic plasma Exchange is a process to remove pathological substances from body. With available upgraded machines targeted selective pathological components can be removed which results better improvement in various disorder's consider as a safe if performed buy trained healthcare and associated with mild side effects like Citrate related toxicity(Tingling, Abdominal cramps) followed by allergic reaction and hypotension.

REFERENCE: American society for Apheresis (ASFA) Guidelines 2019.

French cooperative group of plasma exchange in Guillain-Barre syndrome.1987,22:753-761.