

A RARE CASE OF THERAPEUTIC PLASMA EXCHANGE (TPE) IN A STEROID-REFRACTORY PARANEOPLASTIC NEUROLOGICAL DISORDER IN A SMALL CELL LUNG CARCINOMA PATIENT

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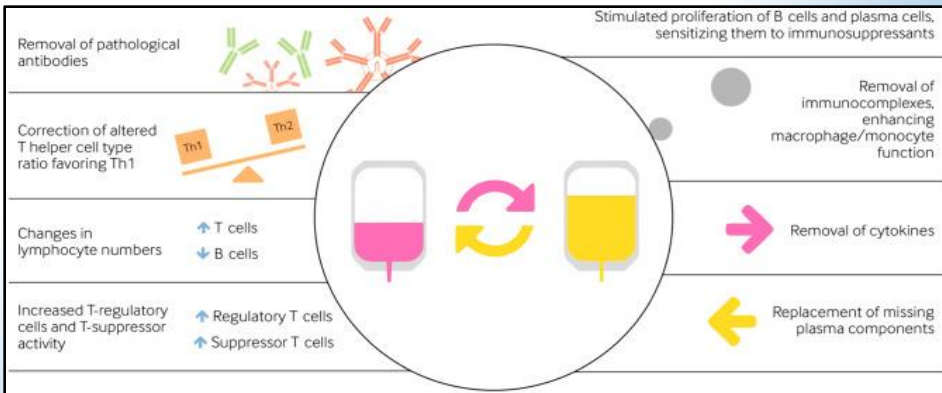
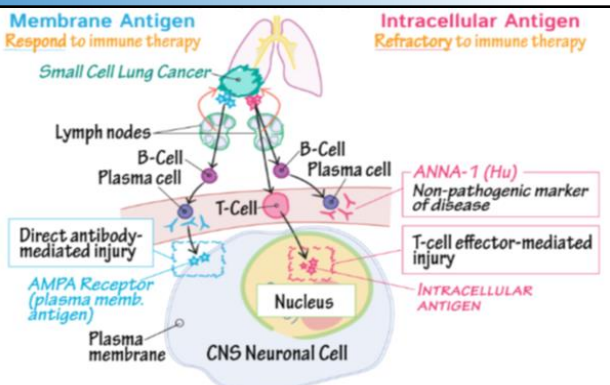
INTRODUCTION

Paraneoplastic neurologic syndromes (PNS) comprise of cancer-associated neurologic conditions triggered by onconeural antibodies against intracellular antigens shared by the tumour and nervous system (e.g., Hu, CV2/CRMP5, Yo, Tr, & amphiphysin). As per ASFA guidelines 2023, PNS gets **category III Grade 2C** with incidence of **0.1-1% (4-9 per 1,000,000)** there are 2 controlled trials, 15 Case series and no Randomized controlled trials, no Case report in TPE.

CASE REPORT

A 63-year-old male, chronic smoker and known case of SCLC on chemotherapy, presented with abnormal behaviour, sensorimotor neuropathy, and cerebellar signs. As nerve conduction studies suggested brain or spine-related aetiology, CSF-autoimmune and serum-paraneoplastic panels were done, which revealed **Anti-GABA-B** and **Anti-Hu**, **Anti-CV2** antibodies respectively. Patient was started on high-dose corticosteroids, however symptoms exaggerated and got bedridden.

Therapeutic Plasma Exchange was considered as the next option to revitalize the patient by removing antibodies and mediators of tumour in the circulation. Patient underwent **three uneventful sessions of TPE daily with 1.5 Plasma Volume exchanged with fluid balance of 100% using 4% Albumin and two Fresh frozen plasma at the end as replacement fluid**. Calcium gluconate infusions were given throughout the procedure. Followed by IVIG and chemotherapy were given. After 3 sessions, patient showed clinically significant improvement in the sensorimotor and cerebellar functions and was able to walk with support and maintain his muscle power and sensations at 3 months of follow up establishing the role of TPE in a steroid-refractory case of PNS.



CONCLUSION: Early diagnosis of PNS and prompt initiation of TPE favours rapid resolution of PNS. Hence upgradation of PNS in ASFA categorization is pivotal.

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