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## Evaluation of the effects of platelet rich plasma in regeneration of the spinal cord

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The purpose of study is to explore the efficacy and safety of platelet rich plasma (PRP) and adipose-derived stem cells in the non-operative management of shoulder tendinopathy amongst individuals with spinal cord injury. In this case in road traffic accidents that cause spinal injuries to the central nervous system, which increased morbidity and motility. The complications in patients were developed, resulting to a challenging problem for medicine. Platelet is the important component of blood which naturally holds the growth factors and cytokines. As a concentrated source of autologous platelets, PRP contains several different growth factors and other cytokines stimulating and healing of soft tissue. Platelet rich plasma therapy utilizes growth factors present in alpha granules of platelets in autologous adult stem cells reside in adult tissues and serve as the source for their specialized cells. In response to specific factors and signals, adult stem cells can differentiate and give rise to functional tissue specialized cells. In recent advancement in the field of regenerative medicine it was thought that this would grant a new approach to this problem, as it had proven beneficial in the repair of peripheral nerve injuries and their regeneration. This study was done to evaluate the effect of Platelet Rich Plasma (PRP) and adult stem cells (ASC) and its effect on the spinal cord post trauma. Subsequently, it was seen that PRP and ASC proved beneficial with marked positive effects in both muscle tone and muscle control and marked clinical improvement although it can still be said that further research must be done in this field.

### Biography

Muhammad Uzair Rehman has received his Bachelor of Medicine and Bachelor of Surgery from Liaquat National Hospital and Medical College Karachi, Pakistan. He is currently an MPhil Scholar at Dadabhoj Institute of Higher Education. During 2013-2014, he completed his House job at Abbasi Shaheed Hospital and Jinnah Post-graduate Medical Centre following which in November 2014 he joined Musavvir Stem Cell Clinic in the capacity of Research Associate. In January 2015, he took up the position of Lecturer at Jinnah Medical and Dental College finally parting ways in 2017 and taking up the post of Senior Lecturer at United Medical and Dental College. He is currently pursuing his MPhil in the field of Molecular Medicine and Medicinal Chemistry. His current research interests include Stem Cells, Platelet Rich Plasma, Platelet Rich Fibrin, Regenerative Medicine and Virology.

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