Operation of the thoracic or thoracoabdominal aorta is challenging both by virtue of the magnitude of the operation itself and the co-morbidities frequently present among the patients requiring the procedure. In addition to a significant risk of mortality, paraplegia or paraparesis after otherwise successful thoracic or thoracoabdominal aortic reconstruction is a devastating complication for patient and physician. Efforts to reduce the risk of paraplegia or paraparesis have appropriately focused up to this time largely on intra-operative management strategies. As soon as the patient awakened from the anesthesia with a normal examination, the surgical team usually is relieved from the worry of neurological deficits. We have recently faced a patient who developed paraplegia on the 15th post operative day just before discharge. We therefore undertook a review of literatures with the aim of identifying patients at risk, contributing factors, and possible strategies for prevention.