ORIGINAL RESEARCH PAPER
Volume-8 | Issue-12 | December - 2019 | PRINT ISSN No. 2277 - 8179 | DOI : 10.36106/ijsr
INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

PARANEOPLASTIC SYNDROME SECONDARY TO PROSTATE CANCER

General Medicine

Dr Amandeep Singh Kaloti*
Professor and HOD, Dept of Medicine, KCGMC, Karnal. *Corresponding Author

ABSTRACT

Paraneoplastic Syndromes (PNS) are rare disorders which are caused by an altered immune response to a neoplasm. There may be the involvement of the endocrine, neuromuscular, musculoskeletal, cardiovascular, cutaneous, haematologic, gastrointestinal, renal or miscellaneous in nature. Upto 8% of the patients with cancer are affected with PNS. Prostate cancer is the second most common urological malignancy to be associated with PNS. The other are renal cell cancer. PNS secondary to the prostate cancer are a rarity. These tend to occur in the setting of the late stage and aggressive tumours and have a poor overall outcomes. PNS are associated with the serum markers that are readily detectable, which help to link the symptoms of PNS to the underlying malignancy. Histology of the prostate cancer associated with PNS frequently reveals neuroendocrine features or small cell carcinoma. Immunotherapy includes steroids, IVIg, plasma exchange, cyclophosphamide, azathioprine, rituximab, mycophenolate mofetil, methotrexate.

KEYWORDS

The rare disorder caused by the altered immune response to a neoplasm is paraneoplastic syndrome (PNS). These are the non-metestatic systemic effects of the malignant disease. These are collections of the symptoms which are caused by the tumour but occur at a site distant from the tumour itself. There may be the involvement of the endocrine, neuromuscular, musculoskeletal, cardiovascular, cutaneous, haematologic, gastrointestinal, renal or miscellaneous in nature. Upto 8% of the patients with cancer are affected with PNS.[1]

Prostate cancer is the second most common urological malignancy to be associated with PNS. The other are renal cell cancer. PNS secondary to the prostate cancer are a rarity. These tend to occur in the setting of the late stage and aggressive tumours and have a poor overall outcomes. There have been reports of the involvement of the endocrine system, nervous system, dermatological system and other systems. Most of these cases occur as the first manifestation of the prostate cancer. But ca also be associated with the recurrence of the tumour after surgical resection. The syndromes can be treated by the treatment of the underlying malignancy. PNS are associated with the serum markers that are readily detectable, which help to link the symptoms of PNS to the underlying malignancy. Histology of the prostate cancer associated with PNS frequently reveals neuroendocrine features or small cell carcinoma.[2]

PNS can be associated with systemic cancer. Paraneoplastic neurologic syndrome can be associated with systemic cancer. Paraneoplastic necrotizing myelopathy occurs in association with several carcinomas and lymphomas. Symptoms usually involve the thoracic portion of the spinal cord including the ascending sensory deficits, sphincter dysfunction and flaccid or spastic paraplegia which may evolve to quadriplegia. These symptoms may progress over days or weeks and terminate in respiratory failure and death. CSF examination reveals an elevated protein concentration. MRI shows contrast enhancement within the spinal cord. CT myelography also helps in the diagnosis. These neurological manifestations are seen in diseases like lymphomas, lung cancer, renal cell carcinoma, breast cancer, leukaemias. Other neurological PNS that can be associated with malignancy may include motor neuron disease, motor neuropathy, sensory neuropathy, amyotrophic lateral sclerosis, stiffman syndrome, encephalomyelitis, chorea, transverse myelitis, myasthenia gravis, Lambert- Eaton myasthenic syndrome, cerebellar degeneration, limbic encephalitis. The neurological manifestations usually improve with early aggressive immunotherapy and treatment of the underlying cancer. The Paraneoplastic neurological syndromes can be associated with the presence of onconeural antibodies. These antibodies are the result of the immune response against a tumour which expresses a neuronal antigen. The classical onconeural antibodies (anti-Hu, Yo, CRMP-5, amphiphysin and Ri) are directed against intracellular antigen and are strongly associated with underlying malignancy. The onconeural antibodies directed against the cell surface antigen include anti-NMDA, VGKC, AChR have weaker tumour association.[3]

Immunotherapy includes steroids, IVIg, plasma exchange, cyclophosphamide, azathioprine, rituximab, mycophenolate mofetil, methotrexate.

Supportive therapy includes symptomatic treatment like NSAIDS, antiepileptics, psychiatric medications, physiotherapy, occupational therapy, speech and swallowing therapy. Respiratory support and nutritional support are important.[3]

REFERENCES:-

1. Storstein A et al. Prostate cancer, Hu antibodies and paraneoplastic neurological syndromes. J Neurol, 2016 May;263(5):1001-1007.
2. Choi Jong Kyoung et al. Paraneoplastic sensorimotor polyneuropathy in prostatic adenocarcinoma. Medicine: April 2018 - Volume 97 - Issue 15 - p e0030.
3. Hong MK et al. Paraneoplastic syndromes in prostate cancer. Nat Rev Urol. 2010 Dec;7(12):681-92.