

Radial Nerve Palsy

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History of present illness: A 31-year-old male presented to the emergency department with a chief complaint of right thumb numbness and inability to extend the right wrist after waking up in his office chair that morning.

Significant findings: On physical exam, the patient was unable to extend his right wrist, thumb, and fingers, and had no sensation of his 1st dorsal interosseous muscles up to the proximal dorsal radial aspect of his forearm. The patient also had slight weakness in thumb abduction. Triceps strength was preserved.

Discussion: Compression of the radial nerve as it runs down the posterior humerus in the spiral groove is responsible for the aforementioned clinical findings, known as “Saturday Night Palsy,” since it can be seen in inebriated individuals who fall asleep with their arm extended over the back of a bench. This condition can also be seen in patients with improperly adjusted crutches and patients with fractures of the body of the humerus¹ (with 8% incidence in these fractures).²

Treatment for compression-related causes includes removing the source of compression, splinting in position of function, physical therapy, and pain management.¹ One study revealed time to resolution of symptoms to range from 0.5 to 6 months.³ Traumatic causes may require more extensive neurologist involvement, with electrophysiologic monitoring and possible surgical repair.⁴

Topics: Radial nerve palsy, Saturday night palsy.

References:

1. Weiss L, Pobre T, Rizzo TD, Silver JK, Frontera WR. Radial Neuropathy. *Essentials of Physical Medicine and Rehabilitation*. 3rd ed. Philadelphia, PA: Elsevier; 2014:129-130.
2. Ekholm R, Adami J, Tidermark J, Hansson K, Törnkvist H, Ponzer S. Fractures of the shaft of the humerus. An epidemiological study of 401 fractures. *J Bone Joint Surg Br*. 2006;88(11):1469-1473. doi: 10.1302/0301-620X.88B11.17634
3. Arnold WD, Krishna VR, Freimer M, Kissel JT, Elsheikh B. Prognosis of acute compressive radial neuropathy. *Muscle Nerve*. 2012;45(6):893-895. doi: 10.1002/mus.23305
4. Robinson LR. Traumatic injury to peripheral nerves. *Muscle Nerve*. 2000;23(6):863-873.