Shortcomings in the Management of Patients with Spinal Injuries in a General Hospital of Delhi

DR. B.K. DHAON*, Dr. R.S. JAIN**, Dr. R. KUMAR ***

This study, presents the results of management, of patients with spinal injuries, admitted in an orthopaedic unit, of a General hospital. A total of 73 patients with neurological deficit, were admitted, during the period of 18 months from July 1989 to December 1990. It was found that, during an average stay of 7.4 weeks in the hospital, the patients had a very high rate of mortality as well as major complications. Results of this study highlight the pressing need, for setting up specialised centres, to provide the required high level of care, to bring down the morbidity and mortality in such patients.

Patients with spinal injuries constitute a large number of inpatients, in the orthopaedics department of a general hospital. This study was started with the objective of analysing the effectiveness of management of such patients in the set up of a general hospital.

MATERIAL AND METHOD

Between July 1989 and December 1990, 73 patients with neurological deficit due to spinal injuries, were admitted in one orthopaedic unit, of the LNJP hospital, attached to the Maulana Azad Medical College, New Delhi. A standard proforma was used to note down the details of various aspects of management during their stay in the hospital.

OBSERVATIONS

Table I : Distribution Regionwise

S.No.	Region	No. of Cases
1	Cervical	45
2	Thoracic	12
3	Lumbar	16
	TOTAL	73

Table II : Extent of neurological deficit at admission

Region	Complete	Incomplete
Cervical	19	26
Thoracic	5	7
Lumbar	7	9
TOTAL	31	42

* MS., Professor.
** MS.
*** PG Student
Department of Orthopaedics, Maulana Azad Medical College, New Delhi.

Table III: Major Complications

	COMPLICATION	REGION		
		Cervical	Thoracic	Lumbar
1.	DEATH	10-(22.2%)	Nil	Nil
2.	BED SORES	19-(41.8%)	6-(49.8%)	9-(56.3%)
3.	CHEST INFECTION	23-(50.6%)	Nil	Nil
4.	URINARY TRACT INFECTION	31-(68.2%)	8-(66.4%)	12-(75%(
5.	CONTRACTURES	16-(35.2%)	4-(33.2%)	6-(37.5%)
6.	PSYCHIATRIC	34-74.8%)	8-(66.4%)	10-(62.5%)

Table IV. Extent of Recovery

REGION	EXTENT		
	Complete	Incomplete	None
Cervical	2(4.4%)	15(33%)	28(62.6%)
Thoracic	0(0%)	6(50%)	6(50%)
Lumbar	0(0%)	6(37.5%)	10(67.5%)
TOTAL	2(2.7%)	27(36.9%)	44(60.4%)

DISCUSSION

From the observations the following facts emerged.

1. The number of patients with neurological deficit following spinal injuries, being admitted in general orthopaedic unit is very large.

2. Rate of major complications as well as mortality is very high. Extent of recovery during the hospital stay, is minimal or none. Only 2.7% of the patients in the present study had complete recovery.

The reasons for latter as can be derived from our study are two fold

a) Outside the hospital
b) Within the hospital

Outside the hospital, initial management of the patients is poor. Initial immobilisation as well as transportation is inappropriate.

Within the hospital, following are the factors resulting in poor prognosis

a) Shifting of patients is frequent, as all the investigation facilities are not available bedside . Besides, the patients have to undergo three to four transfers, before reaching the final bed, where they will stay for rest of the duration in the hospital. The facilities for transportation are

inadequate. All this, aggravates the already serious injury.

b) Good quality inbed radiographs are not available. Moreover the radiographers are not trained to deal with such patients, so the patients are mishandled during the procedure.

c) Turning of the patients is not regular. Technique of handling, is not correct. This is due to the lack of adequate number of trained personnel as well as materials like air mattresses, air rings, pillows etc. Result is a high incidence of bed sores, 46.5% in the present study.

d) Indwelling catheters are used, as there is lack of trained personnel to institute the practise of intermittent catheterisation. Rate of urinary tract infection is 69.8%, in the present study. Moreover, the infecting organisms are mostly resistant strains of gram negative aerobes.

e) Inadequate facilities for physiotherapy of chest, limbs and bladder result in high rates of chest infection and joint contractures viz.50.6% and 35.6% respectively. Most of the patients end up being dependant on indwelling catheters for rest of their lives.

f) Intensive care facilities are poor, resulting in a very high rate of mortality.

g) Facilities for special investigations like myelography and computerised tomography are not readily available. Most of the patients who could be taken up for surgical decompression after these investigations are thus denied this benefit.

h) Facilities for vocational rehabilitation, are not available. Most of the patients are forced to lead a dependant life.

It is obvious from the observations that the general hospitals are not adequately staffed or equipped to tackle these injuries.

CONCLUSION

In this continuing study, it is clearly emerging, that in a general hospital, the future of a patient with spinal injury is bleak. In view of the large number of such patients being received and mismanaged in the general hospitals, it is imperative that specialised spinal injury centres be set up urgently, to provide the level of care which these patients deserve.

REFERENCES

1. Guttmann, L:Spinal cord injury, Comprehensive management and research, Blackwell, Oxford, 1973
2. Bedbrook, GM:Treatment of thoracolumbar dislocations and fractures with paraplegia,Clin. Orthop.112:27,1975.