

# AN ANALYSIS OF PATIENTS SEEKING PHYSIATRIC SERVICE OF A RURAL MEDICAL COLLEGE HOSPITAL

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A total of 13008 patients attending Department of Physical Medicine, Burdwan Medical College Hospital, West Bengal, during the period from January '91 to December '91 are studied. Out of these cases rheumatic diseases are maximum (73.8%) followed by orthopaedic disorders (19.8%) and paralytic disorders (5.8%). Rheumatic diseases are common (52.8%) in age group 20-40 years, maximum (58%) in females and mostly (57%) of soft tissue rheumatism followed by osteoarthritis (36%). Orthopaedic disorders are highest (57.4%) in the age group 20-40 years, maximum (68%) in male and mainly of soft tissue injuries (31%) followed by old fractures cases (26%). Paralytic disorders are maximum (63%) in males and highest (48%) in age group below 10 years. Cerebral Palsy cases (21.6%) are more than Poliomyelitis cases (18.4%).

About 80% of total population of India reside in rural area. Rural people are naturally more prone to neuromusculoskeletal disorders as they are mainly manual workers and housewives. Physical Medicine and Rehabilitation services in rural areas are also negligible. It is aimed to study the incidence and clinical picture of patients in rural area seeking physiatric services, which will be helpful for further planning and development of needbased physiatric services in rural area.

## MATERIAL & METHOD

The study is carried out in the Department of Physical Medicine and Rehabilitation, Burdwan Medical College Hospital, Burdwan, a rural Medical College in West Bengal, during the period from January, 1991 to December, 1991. All patients irrespective of age, sex and cause

attending the Department during this period are included in the study. In each case history, detailed clinical examination, routine blood test, blood sugar, serum uric acid, blood for rheumatoid factor and A.S.O. titre and X-ray of the part are done to come to a diagnosis. Nerve conduction test is also done if required. The patients are advised medicines, physiotherapy, orthosis and prosthesis etc. accordingly.

## RESULTS & DISCUSSION

A total of 13008 patients attend the Department during the period of one year of which 6307 (48.5%) cases are male and 6701 (51.5%) female. Maximum cases 6738 (51.8%) are in the age group 20-40 years followed by 3810 (29.3%) in the age-group of 40-60 years. There are preponderance of female in all age groups

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except in the age groups below 20 years where males are more (Table-1). Out of total 13008 cases rheumatic diseases are maximum 9600 (73.8%) followed by orthopaedic disorders 2580 (19.8%), paralytic disorders 750 (5.8%) and others like postburn contracture, Thrombophlebitis, Buerger's disease etc. 78 (0.6%) (Table-2). Rheumatic diseases are seen maximum (58%) in female and mainly (52.8%) in the age group of 20-40 years (Table-3). Amongst rheumatic diseases, soft tissue rheumatism cases including lumbo-sacral strain, fibrositis, peri-arthritis, etc. are maximum (57%) followed by osteo-arthritis (36%), rheumatoid arthritis (5.2%) etc. (Table-3). While the findings of Brighton (1983) on rheumatic diseases in an unsophisticated rural society of Africa reveal no cases of rheumatoid arthritis, fairly common osteo-arthrosis with one to three joints involvement and no case of multiple osteo-arthritis with Heberden nodes. Beighton et al (1975) concluded that rheumatoid arthritis is rare and of mild nature in rural African population. The high incidence (5.2%) of rheumatoid arthritis in our study is probably due to adaptation of sophisticated life style in our rural areas. Orthopaedic disorders are found mainly (68%) in male and more (57.4%) in the age group 20-40 years. Out of 2580 Orthopaedic

disorders soft tissue injury cases are highest 798 (31%) followed by old fractures 672 (26%), prolapse intervertebral discs (17.5%), congenital abnormalities of limbs and spine 9.8%, chest injuries 9.1%, amputees 0.7% and others 5.9% (Table-4).

In the present study incidence of amputee is 0.7% while Ratnesh Kumar et al (1988) observed 6.7% amputees in rural disable camp studies. This low incidence of amputees in our study is probably due to rural disable camps organised by government and non-government organisations in rural areas off and on.

Paralytic disorders are seen mainly (63%) in males and highest (48%) in the age group below 10 years. Among paralytic disorders peripheral nerve lesions are commonest (29.6%) followed by cerebral palsy cases (21.6%), poliomyelitis (18.5%), hemiplegia (14.4%), etc. (Table-5). Peripheral nerve lesions include nerve injuries, leprosy & G.B. syndrome etc. In the present study among childhood disability cerebral palsy cases (144) are found commonest (21.6%) followed by poliomyelitis cases (18.4%), while Ratnesh Kumar et al (1988) observed maximum number (69.2%) of poliomyelitis followed by cerebral palsy (5.6%) in childhood disability.

TABLE-1

Showing age and sex distributions of study cases

Sex	Age in years					Total (%)
	0-10	10-20	20-40	40-60	60 +	
Male	456 7.2%	686 10.9%	3209 50.9%	1732 27.5%	224 3.5%	6307 48.5%
Female	243 3.6%	601 9%	3529 52.7%	2078 31%	250 3.7%	6701 51.5%
Total	699 5.4%	1287 9.9%	6738 51.8%	3810 29.3%	474 3.6%	13008 100%



TABLE - 2

Showing distribution of cases according to etiology

Diseases	Male	Female	Total
Rheumatic Diseases	4040 42%	5560 58%	9600 73.8%
Orthopaedic Disorders	1759 68%	821 32%	2580 19.8%
Paralytic Disorders	474 63.2%	276 36.8%	750 5.8%
Miscellaneous	34 43.6%	44 56.4%	78 0.6%
Total	6307 48.5%	6701 51.5%	13008 100%

TABLE - 3

Showing Distribution of Rheumatic diseases in relation to age and sex

Rheumatic Diseases	Age in years and Sex						Male	Female	Total (%)
	0-10	10-20	20-40	40-60	60 +				
Rheumatic Arthritis	18 42.9%	24 57.1%	x x	x x	x x	30 71.5%	12 28.5%	42 0.4%	
Rheumatoid Arthritis	6 1.2%	90 18.3%	252 51.2%	120 24.4%	24 4.9%	132 26.8%	360 73.2%	492 5.2%	
Ankylosing Spondylitis	x x	x x	60 100%	x x	x x	58 96.7%	2 3.3%	60 0.6%	
Gouty Arthritis	x x	x x	12 100%	x x	x x	10 83.3%	2 16.7%	12 0.1%	
Osteo Chondrosis	42 63.6%	24 36.4%	x x	x x	x x	54 81.8%	12 18.2%	66 0.7%	
Osteo Arthrosis	x x	12 0.3%	1314 38%	1866 53.9%	270 7.8%	1482 42.8%	1980 57.2%	3462 36%	
Soft Tissue Rheumatism	36 0.7%	558 10.2%	3432 62.8%	1314 24%	126 2.3%	2274 41.6%	3192 58.4%	5466 57%	
Total	102 1.0%	708 7.4%	5070 52.8%	3300 34.4%	420 4.4%	4040 42%	5560 58%	9600 100%	

TABLE - 4

Showing Distribution of Orthopaedic Disorders in relation to age and sex.

Orthopaedic Disorders	Age in years and sex					Male	Female	Total (%)
	0-10	10-20	20-40	40-60	60 +			
Cong. limb Deformities	36	24	12	x	x	32	40	72
	50%	33.3%	16.7%			44.5%	55.5%	2.8%
Cong. Spinal Abnormalities	6	12	156	6	x	120	60	180
	3.3%	6.7%	86.7%	3.3%		66.6%	33.4%	7%
Spinal Deformities	x	24	x	x	x	9	15	24
		100%				37.5%	62.5%	0.9%
Soft Tissue Injuries	36	210	450	90	12	560	238	798
	4.5%	26.4%	56.3%	11.3%	1.5%	70%	30%	31%
Chest Injury	x	6	138	66	24	167	67	234
		2.5%	59%	28.5%	10%	71.4%	28.6%	9.1%
Prolapse I.V.Disc.	x	30	360	60	x	338	112	450
		6.7%	80%	13.3%		75%	25%	17.5%
Spondylo Lysthesis	x	x	48	36	x	26	58	84
			57%	43%		31%	69%	3.2%
Recurrent Dislocations	6	24	18	x	x	24	24	48
	12.5%	50%	37.5%			50%	50%	1.8%
Old Fractures	132	90	294	138	18	468	204	672
	19.4%	13.4%	44%	20.6%	2.6%	70%	30%	26%
Amputees	x	12	6	x	x	15	3	18
		66.7%	33.3%			83.3%	16.7%	0.7%
Total	216	432	1482	396	54	1759	821	2580
	8.4%	16.9%	57.4%	15.3%	2.1%	68%	32%	100%



TABLE - 5

Showing Distribution of Paralytic Disorders in relation to age and sex.

Paralytic Disorders	Age in years and sex					Male	Female	Total (%)
	0-10	10-20	20-40	40-60	60 +			
Cerebral Palsy	144 88.9%	18 11.1%	x	x	x	86 53%	76 47%	162 21.6%
Hemiplegia	x	6 5.5%	30 27.8%	72 66.7%	x	71 65.7%	37 30.3%	108 14.4%
Paraplegia	x	12 66.7%	6	x	x	17 94.5%	1 5.5%	18 2.4%
Post-Encephalitis	42 100%	x	x	x	x	30 71.4%	12 28.6%	42 5.6%
Post meningitis	12 100%	x	x	x	x	6 50%	6 50%	12 1.6%
Paralytic Polio	126 91.3%	12 8.7%	x	x	x	78 56.5%	60 43.5%	138 18.4%
Motor Neuron Diseases	x	x	24 100%	x	x	18 75%	6 25%	24 3.2%
Peripheral Nerve lesions	24 10.8%	60 27%	96 43.2%	42 19%	x	150 67.5%	72 32.5%	222 29.6%
Myopathies	12 50%	12 50%	x	x	x	18 75%	6 25%	24 3.2%
Total	360 48%	120 16%	156 20.8%	114 15.2%	x	474 63.2%	276 36.8%	750 100%

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