ABSTRACT

REHABILITATION OF ORTHOPAEDICALLY
HANDICAPPED CHILDREN IN RURAL INDIA

In our country, rehabilitation of children with orthopaedic disabilities has to be given due priority because the investment during an early period of life will reduce the impact of disability and make their lives more meaningful.

The present study which gives a detailed picture of the problem in rural India, through mass campaign approach, was designed with the following aims and objectives:

1. To collect base-line data by conducting rural survey camps in the State of Maharashtra.

2. To categorize orthopaedically handicapped children for various rehabilitative procedures.

3. To assess the results of surgical treatment and rehabilitation in orthopaedically handicapped children with reference to their rural environment.

Diagnostic Camps:

The diagnostic camps were organised in collaboration with local and social organisations throughout the State of Maharashtra, covering 26 districts, out of the existing 30, over a period of five years.

Seventy-five camps were held with the aid of mass health propaganda. The information collected consisted of demographic, clinical and environmental patient profiles.
It was observed that 30 percent of the disabilities were among children below 5 years of age, high-lighting the importance of early intervention. Out of 21,250 patients examined, 95.5 percent had infective (including polio) etiology.

Further studies on severity of affection showed that 42.43 percent polio patients had no contractures. This would help in planning surgical rehabilitation workload at peripheral level.

A socio-economic study in 13,264 cases, out of 21,250 cases showed that per capital monthly income was less than Rs.69/- in 90.15 percent families.

24.84 percent of 13,264 cases sought medical attention for the first time at the diagnostic camps.

The possibility of furthering the medical education of various categories of health personnel was also explored during the diagnostic and surgical camps.

Patient counselling was helped by a detailed study of the attitudes of parents of 13,264 patients. It was found that a lack of proper information led to the aggravation of polio in several patients because of a usage of traumatising agents such as injections.

Study of school and home environment from physical barrier point of view helped in designing various modifications in surgical and orthotic techniques mentioned further.
Based on the above data orthopaedically handicapped children were categorised into three groups:

1. Corrective surgery group

2. Appliance group

3. Physiotherapy group

Research Projects in Medical Rehabilitation:

The following research projects were undertaken for providing optimum rehabilitation:

(I) A review of 180 patients, with post polio hip and knee contractures, treated by conventional surgical techniques, revealed 95 percent satisfactory results.

(II) Twenty-eight cases of post-polio clawing of great toe, in the paediatric age group, were assessed after treatment with modified Jones procedures. Satisfactory results were obtained in 85.71 percent of cases.

(III) A critical review of 25 cases of Volkman's Ischaemic Contractures of upper and lower limbs revealed that 80 percent of cases obtained satisfactory results following soft tissue surgery and corrective casts.

(IV) Modified post operative management techniques for post-polio hip and knee contractures by groin to toe cast and spinal
exercises was aimed to detect its utility from nursing and domiciliary care point of view. The study group consisted of 93 cases and the control group of 28 cases. It was observed that the cost of treatment by the improved technique was 50.54 percent less as compared with the control group.

(V) A comparative study of 25 patients with conventional calipers and 20 patients with cane calipers led to the observation that substitution of metal bars with cane resulted in a decrease in the dropout rate of caliper usage. Cane calipers proved to be both economical and easy to use.

(VI) Seventy cases of flail shoulder following poliomyelitis were provided with a leather device for maintaining joint alignment and stability. In 15 cases a definite role of this device was proved during follow up studies.

(VII) Provision of a modified knee joint allowing 135° of flexion in above knee calipers, in 20 cases of post-polio paralysis, satisfied the requirements for cross legged and squatting activities of daily life.

Thus the rehabilitation problems of the Orthopaedically disabled were identified and the strategy for rehabilitation was explored.
This study has also given collateral benefits such as opportunities to educate social workers and parents of the disabled. If the diagnostic camps are held as a routine activity at primary health centres, large number of the disabled could be detected early and treated well in time, before the onset of severe disabilities.