

PROBLEMS OF CLASSIFICATION IN TRAUMATIC PARAPLEGIA AND TETRAPLEGIA

By Professor Dr. K.-A. JOCHHEIM

*Rehabilitation Centre, University Neurological Clinic
Cologne, Germany*

THE urge for a convincing classification and recording system of findings is not only a main problem in large centres in order to digest the steadily growing flow of information and experiences from the wards. An equal interest emerges from the smaller units which are only able to present some scientific data, if they could, pool their material under well-defined common points of view. Unfortunately, however, recording of findings affords a remarkable amount of medical working hours, therefore it is rarely possible to collect all data in such a documentation which might be important in the rehabilitation process. We should try to agree upon the minimum amount of data necessary for a certain question. In addition, we certainly need information concerning the history of education, the intelligence, the family situation and the special aims for rehabilitation.

For any work on medical-biological problems in paraplegia a careful recording of the neurological status is indispensable, as Michaelis has shown in his article in the May issue (1969) of our journal. The advantage of defining the level of the lesion by mentioning the most distal uninvolved segment of the cord has already been emphasised. From the prognostic point of view as far as the aspect of recovery is concerned, a rough classification in complete and incomplete is not sufficient. Incomplete syndromes should be carefully qualified in remaining muscle power and sensibility. Finally, the documentation of reflexes and so-called pyramidal signs may give further information about the activity of the cord below the lesion and the additional vascular damage.

The documentation of bladder and bowel functions, including rectal reflex, gains more and more importance during recovery and rehabilitation, especially from a therapeutic point of view. A proposal for a documentation of findings of the urinary system has been worked out following the joint meeting of neurologists and urologists in Homburg/Saar in 1968 by Soekland. He describes the functions from the renal pelvis to the urethra, mentioning inflammations, concrements and functional disorders. Objective data only can be gained using contrast media methods combined with pressure-curve documentation.

The neurological and urological findings mentioned won't answer the question for chances of compensation, which is the main question for the handicapped individual. Therefore we need additional data during rehabilitation which are based on performances and achievements.

At the end of the medical rehabilitation programmes from the view-point of social medicine we are predominantly interested in the dexterity gained, with or without technical aids, the amount of independence as far as toilet training, wheelchair techniques and walking is concerned and the skill to drive a vehicle safely even through heavy urban traffic. Following these lines some intellectual and mental data should be mentioned which often influence the professional and social prognosis more than the physical performance.

The Rehabilitation Centre of Cologne University is still fairly young and slightly

EVALUATION RECORD TO BE USED FOR DOCUMENTATION AT THE
REHABILITATION CENTRE OF THE UNIVERSITY OF COLOGNE

Patient's name and first name

01 card code 02-07 date of birth 08 birth-name/initial 09 sex, male/female 10-14 file refer-
ral number 15-18 profession, last practised 19 in-patient/out-patient treatment 20-24 diagnosis

State of physical health, handicaps, etiology, functional state

25 functional state of internal organic systems 56 efficiency in difficult work
26 vision 57 efficiency in less difficult work
27 hearing 58 efficiency in easy repetitive work
28 right-handed/left-handed
29 functional state of right arm
30 cause of impairment of right arm
31 functional state of left arm
32 cause of impairment of left arm
33 locomotion
34 cause of impairment of right leg
35 cause of impairment of left leg
36 functional state of spinal cord
37 hemiplegic and paraplegic syndromes
38 seizure syndromes
39 frequency of seizures
40 standard of speech

Adjustment to environment, performance, and physical state after adjustment to work load during period of rehabilitation therapy

59 communication with environment
60 orientation/subordination
61 relationship with supervisors
62 mental attitude towards applied rehabilitation therapy
63 efficiency record regarding work performance
64 record on physical health during physiotherapy

Proposed aim of rehabilitation therapy

65-68 proposed profession for first-employment
69-72 proposed profession for resettlement in employment
73-76 proposed profession for vocational re-education
77 employment outside the open labour market
78 medical follow-up treatment

Agency bearing the financial responsibility, and case record

79 agency bearing the financial responsibility for prescribed rehabilitation therapy
80 additional data relating to case record

Psychopathologic findings, handicaps, etiology, behaviour and intellectual status

41 manifestation of psychogenic symptoms
42 intellectual status and cause of reduced intellectual capacity
43 motivation and emotional status (personality structure)
44 cause of characteristic personality features

Perception of work tasks, working habits, productivity

45 perception of difficult tasks
46 perception of less difficult tasks
47 perception of the easiest tasks in repetitive work
48 endurance
49 attention span
50 influence of environment and adjustment to new tasks
51 motivation at work
52 reliability, willingness to assume responsibilities
53 performance rate in difficult work
54 performance rate in less difficult work
55 performance rate in easy repetitive work

date signature

coded

verified

punched

filed

underdeveloped concerning the necessary number of staff members. These conditions have necessitated considerable limitations in the documentation programme. Our case history certainly includes the physical deficit by means of the classic neurological status and the conditions of joint, skin and urinary tract. For judging disability and future work-capacity we use a fairly simple pattern which can be applied to different impairments and is easily transferable to a IBM punch card.

We hope, that these data might be a modest step towards a prognostic evaluation of future chances for our patients.

A MODEL FOR DOCUMENTATION OF SPINA BIFIDA

By KLAUSDIETER PARSCH, M.D.

*Orthopaedic University Clinic, Spinal Injuries Centre,
Heidelberg, Germany*

FOURTEEN months ago we opened a special ward for the habilitation of paraplegic children with the orthopaedic university clinic of Heidelberg. Already within the first few months of our work it became evident that we would be mainly concerned with the treatment of congenital paraplegia on account of the prevailing number of children.

Only few children with myelomeningocele had been treated in our clinic before we opened a special ward. The outcome of our habilitative efforts was limited by the extent of the neurological defect. We got satisfactory results with sacral lesions having neurogenic foot deformities. On the other hand the results of treatment in myelomeningocele with lumbar or thoracic lesions at that time were as a rule inadequate.

An important impulse was received at a joint meeting in Heidelberg last summer with Mr Sharrard and Dr. Lorber from Sheffield. In the meantime we have habilitated 20 children with spina bifida cystica. Nevertheless, the waiting list for children to be operated or trained is steadily increasing. Since January 1969 we have opened a special spina bifida out-patient day, where a team of a doctor, a physiotherapist and a social worker see three to five new cases every week. Most of these children had been without an adequate orthopaedic treatment before.

Dealing with these problems, particularly new in Germany, we were confronted very soon with the necessity of a sufficient documentation of the possible causes and clinical findings. The complexity of pathological symptoms makes a co-ordinated programme necessary among the teams concerned: neuro-surgeon, paediatrician, neurologist, orthopaedic surgeon, urologist, psychologist, educational officer, etc. The distance of several miles between the orthopaedic clinic where we are working and the other clinics has been a handicap for co-ordination, but during the last months the co-operation has considerably improved by exchange of clinical records and joint meetings.

At first we used a double-sided form in which we recorded the family history and the course of pregnancy and birth. This form also included columns of neurological, neurosurgical and urological facts of interest. The clinical findings were recorded according to orthopaedic aspects with special reference to neurology. As the number of children coming as out-patients and for clinical treatment is