

### Comprehensive Evaluation of Interventions for Injuries of Primary and Middle School Students

Lu Guanping; Zhou Chunbon; Wu Ailing

Jiangmen Sanitary and Anti-Epidemic Station, Guangdong, PEOPLE'S REPUBLIC OF CHINA

**Objective:** To explore the intervention measures for prevention and control of injuries and evaluation of their effectiveness in students of middle and primary school.

**Methods:** The effectiveness of the intervention was evaluated by comparison of the incidence of injuries before and after interventions in 3,896 students of nine middle and primary schools. These findings were compared with a nonintervention group of 651 students of four primary schools in Jiangmen City, Guangdong Province, during January to December 1999.

**Results:** The incidence of injuries dropped from 50.6% before intervention in the intervention group to 11.8% after intervention, a 76.7% reduction. The proportion of severe injuries dropped from 7.8% before intervention to 0.65% after intervention. The incidence of multiple injuries dropped from 19.2% to 3.2%, an 83.6% reduction. However, in the control group, the incidence of injuries dropped from 52.7% to 49.0%, a reduction of only 6.8%, with a ratio of reduction of intervention to control of 11.2%, and a ratio of cost to benefit of 1:13.9.

**Conclusion:** Intervention measures focusing on health promotion can prevent and control the occurrence of injury in students of middle and primary schools in a cost-effective manner.

**Key words:** benefit; children; cost; incidence; health promotion; injuries; prevention; students

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### The Effect of rhGH on Protein Metabolism of Patients with Abdominal Trauma

Luo Kaiyuan; Shao Qinghua; Yang Guokai;

Liu Wengzuo; Wang Mingchun

Department of General Surgery, Yunnan No.2 People's Hospital, Kunming, CHINA

**Objective:** To study the effects of rhGH on protein metabolism of patients with abdominal trauma. **Methods:** Forty-eight patients with abdominal trauma were enrolled in the study: 20 into the control group, and 28 into the treatment group. All cases accepted operation and treatment with TPN; rhGH was administered in the treatment group; 24 hours after operation for five or seven days, albumin, globulin, prealbumin, transferrin, IgG, IgA, IgM, TSE, hepatic and renal functions, and glucose were measured respectively. In the fifth and tenth days, POF was observed.

**Results:** POF, TSE, AMC, albumin, globulin, prealbumin, transferrin, IgG, IgA, IgM decreased in the control group ( $p = 0.05$ ), and were unchanged in the treatment group. Hepatic and renal functions and glucose levels remained unchanged for both groups.

**Conclusion:** Protein synthesis is increased by the administration of rhGH; decomposition of protein and POF decreased. The tissue injury recovered quickly.

**Key words:** abdomen; organ function; protein metabolism; rhGH; trauma

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### New Approaches to Diagnosis and Rehabilitation of Patients with Posttraumatic Stress Disorders

Konstantin Lyadov

Central Clinical Basseinovy Hospital, Moscow, RUSSIA

**Introduction:** In many countries of the world, standards for the diagnosis of Posttraumatic Stress Disorder (PTSD) are the criteria being proposed by American Association of Psychiatrists (DSM-4), including criteria by A, B, C, D, and E groups. However, the use of these criteria doesn't allow the identification of earlier vegetative signs and, therefore, the ability to carry out timely medical rehabilitation.

**Methods:** We've studied peculiarities of the formation of the PTSD syndrome, and the efficiency of programs of medical rehabilitation for 234 participants in the antiterrorist operations in the Chechen Republic during a period of 3–8 months in 1999–2000 after their return from the scene of action. The examination program for each person included: DSM-4 testing, estimation of vegetative functions with the help of modern computer system "BHC-Specter", express-estimation of cerebral alpha rhythm by the method "Unifac-EEG" (developed by the authors), and estimation of psychological status of a person with the help of special questionnaires.

**Results:** According to the data from the DSM-4 test, the syndrome was revealed in 24% of the participants. At the same time, a syndrome of recurrent trauma emotional experience was identified in 78 % of cases, symptoms of increased anxiety in 67%, and vegetative signs in the form of different emotional disturbances in 34% of cases. Use of special test programs as well as estimation of vegetative nervous system with the help of quantitative indices allowed identification of earlier signs of PTSD in 37% of the cases. A syndrome of recurrent trauma experience was shown in 82%, and vegetative signs in 67% of the cases. The most apparent were changes from the side of cerebral alpha potential, which revealed desynchronism in 46%.

A total of 123 PTSD patients underwent special programs of medical rehabilitation, which included transpersonal psychotherapy, mesodyencephaly modulation (by our method), and microwave resonance therapy by the small doses method. The control group included 11 persons, who underwent standard group psychotherapy. The use of the complex of modern programs of medical rehabilitation gave a positive effect in 88% of cases; for the control group, it was only in 52%.

**Conclusions:** These data show the necessity to include additional diagnostic programs for the early diagnosis of PTSD, as well as the use of modern methods of medical rehabilitation that allow correction of the above mentioned changes in 88%.

**Key words:** diagnosis; discovery; interventions; post-traumatic stress syndrome (PTSD); rehabilitation; treatment

**E-mail:** rcdm.org@g23.relcom.ru

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