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Conference Abstract A30

Assessment of Quality of Life in Patients with Oncohematological Diseases at Different Stages of Treatment and Rehabilitation in the Republic of Tajikistan

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Background

Quality of life (QOL) for patients with oncohematological diseases, especially in the pediatric population, is an important prognostic and socially significant indicator (1,3,5). Modern protocols for acute leukemia therapy, despite high efficacy, are accompanied by pronounced side effects and prolonged hospital stays, substantially affecting the physical, psycho-emotional, and social states of patients (2,4). In the evolving healthcare system of Tajikistan, QOL assessment enables objective insight into the impact of treatment and rehabilitation on patients' overall condition.

Aim

To assess the dynamics of quality of life scores among children with acute leukemias at different phases of chemotherapy and rehabilitation at the National Medical Center of Tajikistan.

Materials and Methods

A prospective cohort study included 50 patients, aged 3–16 years, newly diagnosed with acute leukemia (38 acute lymphoblastic leukemia cases, 12 acute myeloblastic leukemia cases), hospitalized in the pediatric hematology department of the NMC from 2023 to 2025. QOL was evaluated using adapted and validated PedsQL™ 4.0 Generic Core Scales and PedsQL™ Cancer Module at three key stages:

1. Induction of remission;
2. Consolidation/intensification of therapy;

Early and late rehabilitation.

Statistical analysis used SPSS 26.0 software.

Results

The prospective study revealed significant changes in QOL indices among children with acute leukemias as a function of treatment phase. During induction of polychemotherapy (30–45 days from start), 78% of patients demonstrated reduced physical functioning scores (PedsQL scale—Pediatric Quality of Life Inventory) below 60 points, correlating with marked myelosuppression, infectious complications (febrile neutropenia episodes in 62%) and toxic hepatitis (observed in 38%). At the consolidation stage, partial restoration of physical functioning scores (up to 70–75) was observed, but emotional and social distress persisted. Over 50% of children reported anxiety, decreased interest in daily activities, and difficulty communicating. Parents noted sleep disturbances, loss of appetite, and increased irritability. During maintenance therapy (6 months after start), positive trends in general well-being were noted; 68% of children restored physical and cognitive function to threshold (over 80 on PedsQL). However, 23% experienced chronic fatigue and reduced activity, requiring multidisciplinary support (psychotherapy, nutritional correction, individual exercise therapy). Post-rehabilitation QOL analyses (12 months after start) showed that with appropriate multidisciplinary care (psychologist, physiotherapist, clinical pharmacologist), 82% of children achieved stable high QOL. Conversely, those from socially vulnerable families without ongoing support experienced worsened emotional states and lower PedsQL scores (<70).

Conclusion

QOL in children with acute leukemia varies substantially across treatment stages. The induction of remission is the most vulnerable phase, requiring special attention to physical and psycho-emotional health. Comprehensive QOL assessment should become an integral part of treatment and diagnostics, enabling therapy and rehabilitation to be tailored to individual patient needs.