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abstract

Management and Outcomes of Chemotherapy Extravasation of MAHAK Hospital pediatric cancer patients

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Management and Outcomes of Chemotherapy Extravasation of MAHAK Hospital pediatric cancer patients

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Introduction: Extravasation, the accidental leakage of intravenous chemotherapy drugs into surrounding tissues, is a significant complication in pediatric oncology. This report examines pediatric cancer patients at MAHAK Hospital who experienced extravasation, focusing on demographics, clinical features, complications, management, and outcomes.

Methodology: A retrospective analysis was performed on 40 pediatric cancer patients treated at MAHAK Hospital. Data were categorized by age, gender, cancer type, intravenous (IV) site, chemotherapy drugs, complication timing, and treatment approaches.

Results: The majority of patients (40%) were aged 1–5 years, with the lowest incidence (2.5%) in those under 1 year. Gender distribution was equal, with 20 males and 20 females. The most common cancers were Rhabdomyosarcoma (17.5%), Osteosarcoma (12.5%), and Retinoblastoma, Neuroblastoma, and ALL (each 10%). The right hand was the most affected site (50%), followed by the left hand (40%), left leg (5%), with no cases involving the right leg. Doxorubicin was the most commonly implicated drug (37.5%), followed by Vincristine (15%) and other drugs like ARAC and Actinomycin D. Complications included erythema (27.5%), inflammation with pain (20%), and edema (10%).

Most extravasation incidents occurred during chemotherapy (67.5%), with 20% observed the day after, and 12.5% within a few hours post-treatment. The most common treatment was cold compresses combined with DMSO (37.5%), with additional treatments including hydrocortisone ointments, hyaluronidase, and foam dressings. All 40 patients fully recovered from extravasation, with no long-term complications.

Conclusion: Extravasation is a critical, but manageable complication in pediatric oncology. Timely recognition and effective management are essential, as demonstrated by the full recovery of all patients. These findings highlight the need for standardized protocols to improve outcomes in similar cases.