Infiltration and extravasation account for 23-78% of the complications stemming from peripheral venous perfusions in neonatal intensive care units” Ly (2017).

Abstract:

INTRODUCTION: Infiltration and extravasation account for 23-78% of the complications stemming from peripheral venous perfusions in neonatal intensive care units. Their consequences, sometimes dramatic, can be pain, infections, or even loss of skin, which can lead to nerve and/or muscle damage, particularly severe for preterm neonates. Today there are no recommendations on the care of these lesions, which can lead to an erroneous choice or to a delay in the possible treatments.

OBJECTIVE: This review of the literature aims to explore and propose elements of therapeutic care collected in the scientific literature. It focuses on skin lesions due to extravasation of peripheral venous perfusions in neonatal intensive care units.

METHODS: The PubMed database and the publishers’ platform ScienceDirect were used. The bibliographies of the selected articles were also run. All types of studies examining one or several treatments for the care of postextravasation skin lesions in neonatal intensive care units were included in the search, without any limit on the date, except for case reports. To estimate the quality of the studies, the tool proposed by the French National Authority for Health, which classifies the various types of studies according to their proof level, was used.

RESULTS/DISCUSSION: Thirteen publications were analyzed, including four case series, five retrospective studies, and four interventional studies. The vast majority of these studies have been published since 2005. No comparative, controlled, and randomized trials appear in the literature. Chronologically, we observed a growing interest in the premature infant population, in parallel with the increasing number of publications. Among the significant number of treatments proposed, five main categories were identified: topical treatment,
surgery, the Gault method, no specific treatment, and others. All the skin lesions of the babies studied healed, without important aftereffects. These publications also show that most of the time a combination of different types of treatment is used depending on the lesions’ progress and doctor’s assessment. Few differences are made between term neonates and premature neonates in the choice of treatment. All these types of care can be applied to both populations. In spite of the lack of consensus on the care to be adopted, all the authors emphasize the important role of prevention according to the official regulations.

CONCLUSION: The total absence of studies with a sufficient level of proof does not allow, at this time, the elaboration of guidelines for the care of these lesions. However, the proposals made in the literature seem promising. Therefore, it would be wise to conduct randomized trials on relatively large samples to compare these various types of treatment.

Reference:


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