Abstract:

AIMS AND OBJECTIVES: To evaluate the effectiveness of topical interventions in the prevention or treatment of intravenous therapy-related phlebitis.

BACKGROUND: Phlebitis is a severe inflammatory reaction that can be caused by intravenous therapy with hyperosmolar drugs. Although a variety of interventions are performed in several different countries, the most efficient method is yet to be established.

DESIGN: A systematic review of randomized controlled trials (RCTs) was conducted.

METHODS: Following the PRISMA checklist, we conducted a literature search using 7 different databases using an individual strategy adapted for each. Studies in which any topical intervention was applied to prevent or treat intravenous therapy-related phlebitis which were published between 1998 and 2019 were analyzed.

RESULTS: Data were collected of 13 RCTs, which in total collected data from 2,015 patients during hospital treatments with different types of intravenous therapies, such as fluid replacement, antibiotics, chemotherapy, and antiarrhythmic drugs. The effectiveness of different topical interventions such as the application of non-steroidal anti-inflammatory drugs, Sesame indicum oil, heparin sodium formulations, Chamomilla recutita tea and ointment, and Rosmarinus officinalis ointment were identified.

RELEVANCE TO CLINICAL PRACTICE: Although the studies suggests a potential to use phytotherapy agents as topical interventions, pharmaceutical preparations, main substrate, and pharmaceutical or phytotherapeutic origins are very different between studies. There is insufficient data to build a solid conclusion that lead us to recommend a specific topical intervention in the prevention or treatment of intravenous therapy-related phlebitis.

Reference: