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BACKGROUND

Extravasation of cytostatic agents is one of the major complications in cancer treatment with anthracyclines. There is a lot of information about the management of extravasations with "classical" anthracyclines but liposomal anthracyclines have distinctive pharmacokinetics and different toxic-effect profile. Nowadays, dexrazoxane is only licensed to treat extravasation with "classical" anthracyclines. However, the efficacy of dexrazoxane has been reported in some cases reports. This review collects all extravasation cases that have been published with liposomal and pegylated liposomal anthracyclines with special emphasis on the use of dexrazoxane.

PURPOSE

To review the scientific literature on development and management of anthracycline extravasation injuries including the clinical evidence of dexrazoxane. Material and methods.

MATERIAL AND METHODS

A bibliographic review was conducted using the pubmed database through the following keywords: anthracyclines, extravasations and chemotherapy. The period covered was from database inception to September 2015, inclusively. Articles about clinical cases and literature in English or Spanish were included. Practice guidelines and expert consensuses were analyzed too.

RESULTS

- Practice guidelines and expert consensuses: not found.
- Seven articles fulfilled the inclusion criteria: 5 cases reports (including 6 patients) and 2 series of cases (each series treated in the same way).
- Extravasated drugs: 3 liposomal doxorubicin, 1 liposomal daunorubicin, 4 pegylated-liposomal doxorubicin.
- General therapy: local cold packs, topical and subcutaneously corticosteroids, painkillers, subcutaneously lidocaine and low weight molecular heparin.
- Dexrazoxane was administered in 3 cases but only 1 article reported the dosage.
- Symptoms: local edema, pain, burning, erythema, hematoma.
- Outcomes: only 1 patient treated with local cold packs and washing performed necrotic areas and scars, the rest of cases completely resolved in 2 or 3 months with no skin injury. Since 2006, date of the approval of dexrazoxane, 3 of 4 reported cases have been treated with this medicine.

CONCLUSION

There is a lack of consensus in the management of extravasations with liposomal anthracyclines and dexrazoxane could be used to treat severe extravasations of liposomal anthracyclines. Therefore, the introduction of this antidote for this medicines needs further studies to ensure the efficacy and security. So, all oncology services should make a protocol including general interventions and the off-label use of this medicine.