

Intravenous extravasation: A comprehensive management algorithm

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Disclosure Statement

No disclosures.

Objective

Plastic surgeons are often requested to play a role in the management of intravenous extravasation injuries. Given the deficiency in the literature, our goal was to to construct a comprehensive algorithm for the management of common extravasation injuries.

Methods

- A thorough literature search of IV extravasation and management was completed with 129 publications reviewed.

Methods

- We evaluated information pertaining to the most common categories of extravasated material managed at our institution.
- A treatment algorithm was developed integrating information culled from articles reviewed independently by two of the co-authors

Results

- One hundred and twenty nine publications were reviewed for content related to the management of extravasation injury. From this assembled information we constructed a comprehensive algorithm for the management of extravasation injury.

Staging of Intravenous Infiltration

Stage 1

Pain: None

Percentage: <25%

Exam: No to minimal swelling

Stage 2

Pain: Mild

Percentage: 25-50%

Exam: Mild swelling,

Stage 3

Pain: Moderate

Percentage: 50-75%

Exam: Moderate swelling, ulceration

Stage 4

Pain: Severe

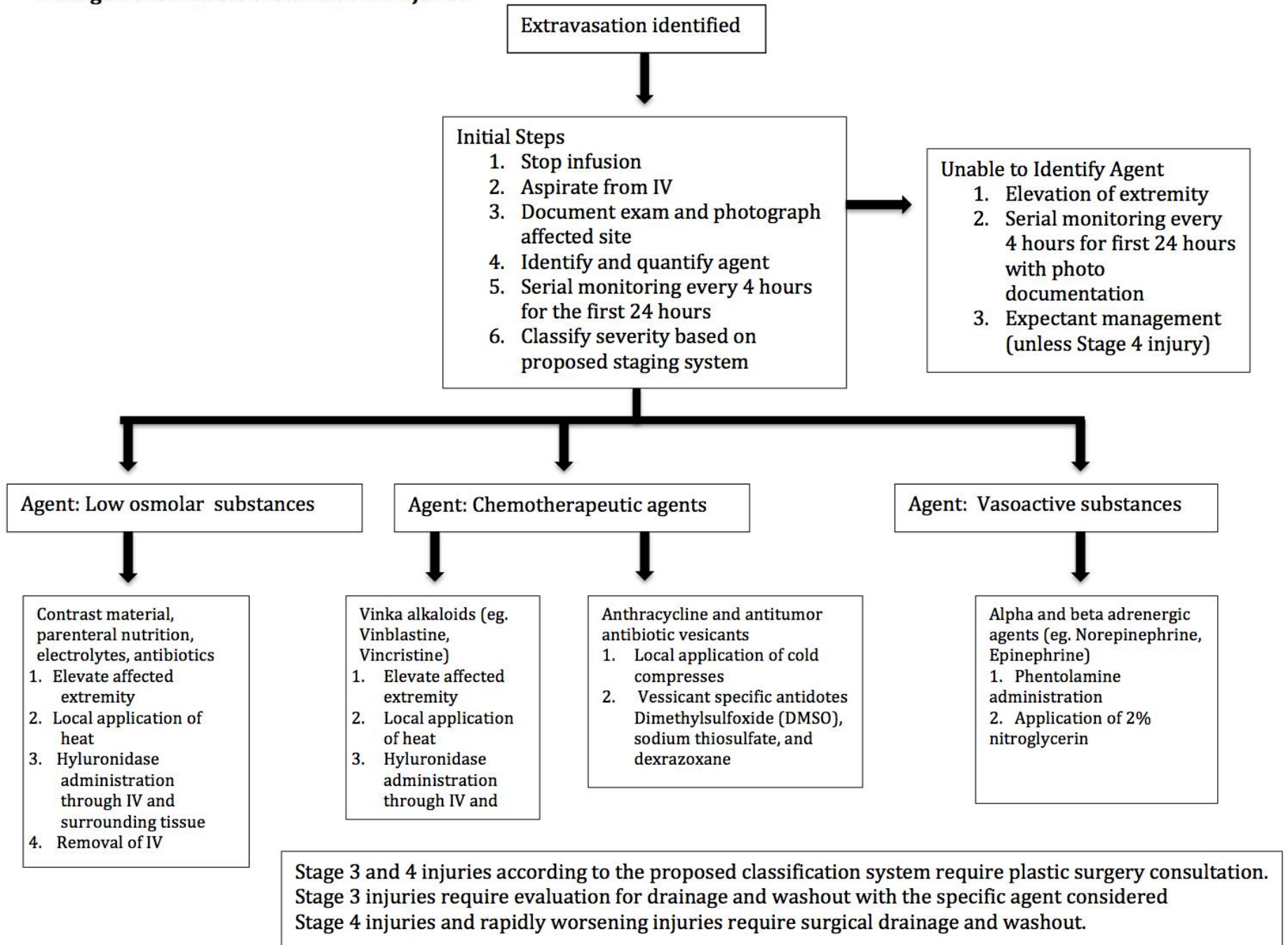
Percentage: > 75%

Exam: Marked swelling, absent or diminished pulses, skin necrosis

*Based on percentage of affected area with clinical signs of injury.

** Staging based on most severe component

Management of acute extravasation injuries.



Conclusion

- IV extravasation can be a severe injury.
- There is no published management algorithm.
- Standardization of classification is essential to guiding treatment.
- Multi-disciplinary, protocol driven approach is essential to promote patient safety, limit morbidity, and reduce cost.

References

Full list upon request

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