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Sensor Guided Needle Entry Procedures: A Scoping Review of Advancements to the Veress Needle & Selected Needle Entry Techniques V.2

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Disclaimer

No conflicting interests

Abstract

Primary entry during minimally invasive abdominal surgery remains the one step associated with controversy and complications.
This scoping review attempts to draw literature describing sensor augmented techniques for introducing the Veress needle into the abdomen in a bid to reduce associated challenges. Publications related to other relevant needle entry techniques into critical spaces where sensors are successfully utilised are also briefly reviewed.
It is expected that an overview of related areas in which the technology is applicable and modifications to established techniques alongside the added improvements will be described.

Image Attribution

N/A

Guidelines

Not applicable

Materials

Reference manager (End Note 20)
Personal Computer with WiFi access

Safety warnings

None

Ethics statement

No ethical approval was required to permit this study.

Before start

None

Eligibility Criteria

1. Studies in English

2. Publication period 1992- May 2024

3. Articles with full text available

4. Human subjects

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