Chirurgia (Bucur). 2023;118(1):8-19
http://dx.doi.org/10.21614/chirurgia.2830

Robotic Surgery in Achalasia: State of the Art

Giuseppe Palomba, Marianna Capuano, Raffaele Basile, Giuseppe Sorrentino, Agostino Fernicola, Pietro Anoldo, Marco Milone, Giovanni Domenico De Palma, Giovanni Aprea
Division of Endoscopic Surgery, Department of Clinical Medicine and Surgery, Federico II University, Naples, Italy

Abstract

Introduction: Achalasia is a rare primary esophageal disorder characterized by impaired functioning of the lower esophageal sphincter. The goal of treatment is to reduce symptoms and improve the quality of life. The gold standard of surgical approach is Heller-Dor myotomy. The aim of this review is to describe the use of robotic surgery in patients with achalasia.

Methods: The literature review was performed by searching on PubMed, Web of Science, Scopus and EMBASE for all studies on robotic surgery for achalasia, published from January 1, 2001, to December 31, 2022. We focused our attention on randomized controlled trials (RCTs), meta-analysis, systematic reviews, and observational studies on large cohorts of patients. Furthermore, we have identified relevant articles from the reference list.

Conclusions: Taking into consideration our review and experience, RHM with partial fundoplication is safe, efficient, comfortable for the surgeon and characterized by a reduction of the intraoperative perforation rate of the esophageal mucosa. This approach may represent the future for the surgical treatment of achalasia especially with a reduction in costs.

Key words: achalasia, robotic surgery, Heller-Dor myotomy, robotic myotomy, minimally invasive surgery, fundoplication