

### **The Clinical Efficacy, and Long-Term Outcomes Between Pneumatic Dilation and Laparoscopic Heller Myotomy in Achalasia**

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#### **Abstract**

*Introduction:* Achalasia is the most well-known motility disorder, characterized by the lack of optimal relaxation of the lower esophageal sphincter during swallowing and the absence of peristalsis of the esophageal body. Laparoscopic Heller esocardiomyotomy (LHM) and pneumatic dilation (PD) were the main treatment options for achalasia. Currently, the therapeutic methods are complemented by per-oral endoscopic myotomy (POEM).

*Materials and Methods:* we performed a retrospective study, analyzing the data and evolution of 98 patients with achalasia, admitted and treated in the General and Esophageal Surgery Clinic of the St. Mary Clinical Hospital-Bucharest between January 2016 and June 2023. The treatment was performed by PD in 25 cases and the majority LHM. The average duration of symptoms in the case of PD was 48 months, and 24 months in LHM. The patients were evaluated before and after the treatment procedures by the Eckardt clinical score and investigations such as timed barium esophagogram (TBO) and esophageal manometry.

*Results:* Although patients had the same Eckardt score before treatment, a statistically significant decrease of the Eckardt score was obtained at the post-therapeutic evaluation after undergoing LHM compared to PD. Recurrence of symptoms was more frequent in the case of PD, requiring another therapeutic intervention. The cost of treatment, as well as the number of hospitalization days were reduced in the case of PD.

*Conclusions:* The treatment of achalasia with LHM is more effective regarding recurrence of symptoms, even if it involves higher costs and a longer hospital stay compared to DP.

**Key words:** achalasia cardia, laparoscopic Heller myotomy, Dor fundoplication, pneumatic dilation