

TRENDS IN THE SURGICAL MANAGEMENT OF INGUINAL HERNIA, CHOLECYSTECTOMY, AND APPENDICITIS IN HUNGARY BETWEEN 2015 AND 2024

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OBJECTIVES

Minimally invasive surgery has become a reliable approach for reducing treatment times across healthcare systems worldwide. The aim of the study is to evaluate trends in surgical management of inguinal hernia, cholecystectomy, appendicitis in Hungary, focusing on minimally invasive uptake, day-case expansion, and COVID-19 impact.

METHODS

The study database was derived from OECD Health Statistics and included nationwide data on selected surgical procedures in Hungary between 2015–2024. The aim of the study is to analyse annual cases by laparoscopic versus open technique and day-case versus inpatient care, assessing temporal trends across the study period.

RESULTS

Procedure volumes increased by ~15–20% across all indications, with a clear shift toward laparoscopic and day-case surgery. Inpatient and day-case care were nearly balanced overall (51.37% vs. 48.63%). A sharp decline occurred in 2020 due to COVID-19, followed by recovery to pre-pandemic levels by 2022–2024. By study end, laparoscopic procedures reached 81.24%, and day-case surgery became dominant (57.22%).

CONCLUSIONS

Surgical care for common abdominal conditions in Hungary has undergone substantial modernization over the past decade. Despite temporary disruption caused by the COVID-19 pandemic, long-term trends toward minimally invasive techniques and day-case surgery remained robust. These findings provide relevant real-world evidence for health policy decision-making and surgical capacity planning.

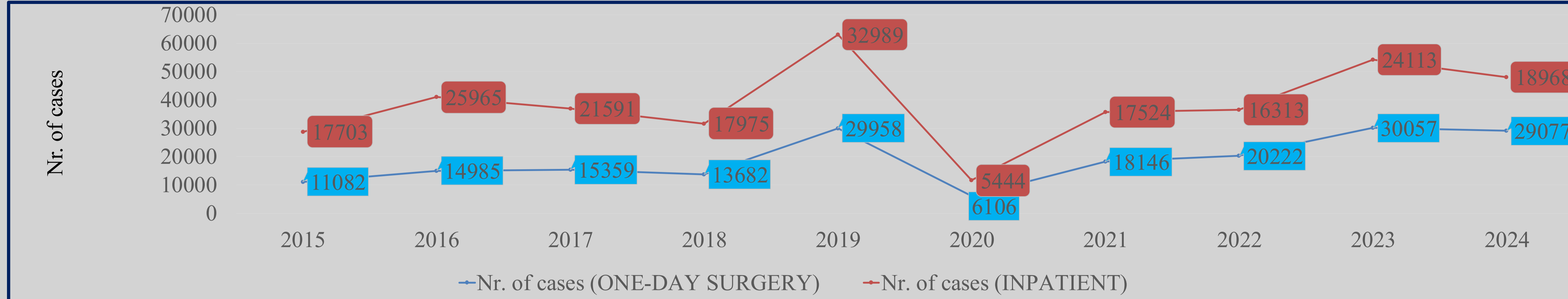


Figure 1. Figure 1.

Annual number of cases in inpatient and one-day surgical care (2015-2024)

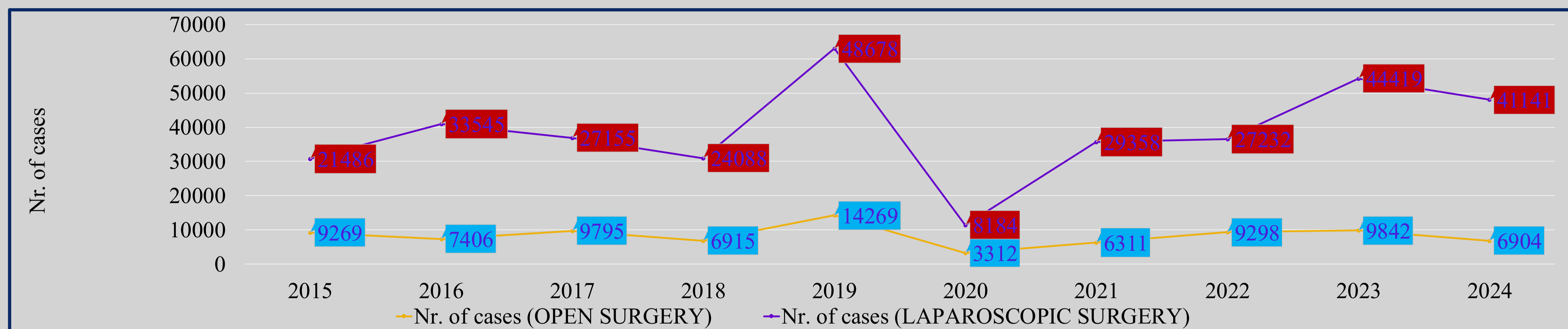


Figure 2.

Annual number of cases in open surgery and laparoscopic surgical care (2015-2024)

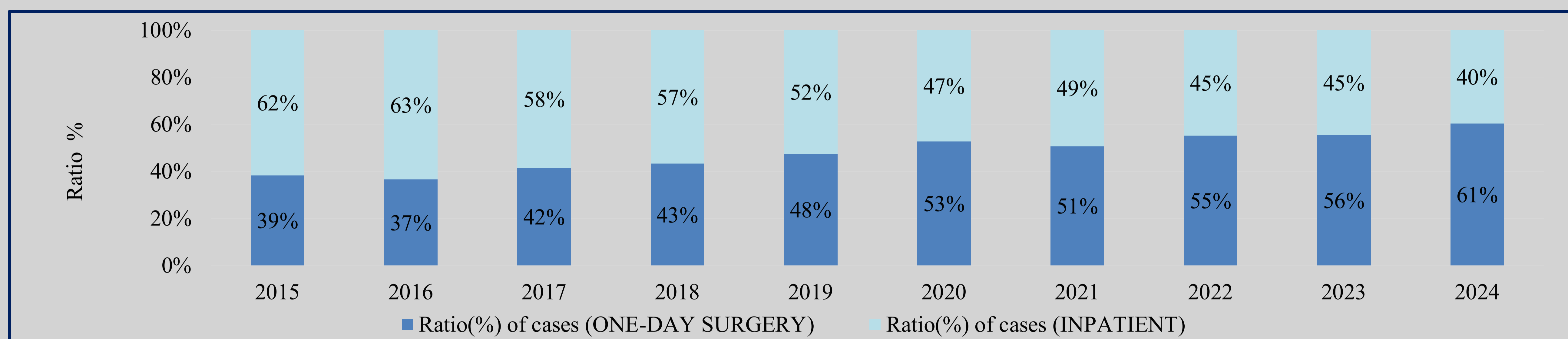


Figure 3.

Annual ratio of one-day surgical care (2015-2024)

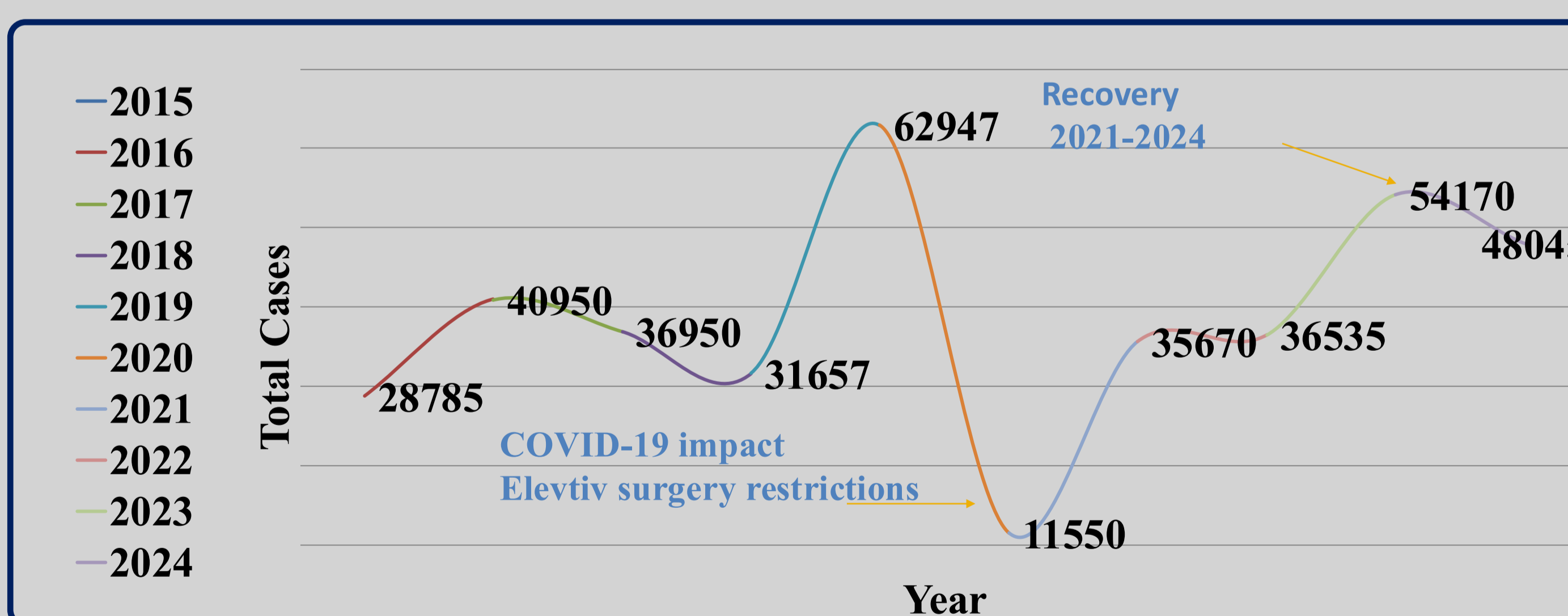


Figure 4.

Impact of COVID-19 on case volume : A marked decline in surgical activity was observed in 2020 due to COVID-19-related restrictions, followed by a gradual recovery, with volumes returning to or exceeding pre-pandemic levels by 2022–2024.

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