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The Decline of Open, Laparoscopic, and Robotic Splenectomies: A Single Center Experience

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ABSTRACT

Background: Splenectomy has been performed for various indications from haematological diseases to benign cysts and tumours, and for splenic traumatic injuries. However, there has been a steady decline in splenectomies in the last 20 years. The aim of this study is to establish the reasons behind this decline in splenectomy and to analyse them based on indication, type of splenectomy, and manner of approach (open, laparoscopic or robotic).

Material and Methods: This is a retrospective study of a single centre experience of all the splenectomies, both total and partial, performed in the Department of General Surgery of Fundeni Clinical Institute (Bucharest) between 2002 and 2023. Only surgeries for primary splenic diseases were selected, splenic resections as part of other major operations were not included.

Results: Between 2002 and 2023, 876 splenectomies were performed in the Department of General Surgery of Fundeni Clinical Institute (Bucharest). Most splenectomies (n=245) were performed for immune thrombocytopenic purpura (ITP), followed by benign tumours and cysts (n=136), lymphoma (n=119), hypersplenism due to cirrhosis (n=107) and microspherocytosis (n=95). Other indications included myelodysplastic syndrome (n=39), trauma (n=35), thalassemia (n=22), leukaemia (n=18) and also there were 60 splenectomies that were performed for hypersplenism of unknown cause. There were 795 total splenectomies (TS) and 81 partial splenectomies (PS). There was a decline in the number of splenectomies both TS and PS for all these indications, most notably in the case of ITP, microspherocytosis and hypersplenism due to cirrhosis with no splenectomies performed for these indications since 2020.

Conclusion: With the development of new lines of treatment, advances in interventional radiology and in surgery with the spleen parenchyma sparing options, the need for total splenectomy has been greatly reduced which is reflected in the decline in the number of splenectomies performed in the last 20 years in our clinic.

Key words: total splenectomy, immune thrombocytopenic purpura, cirrhosis, partial splenectomy, splenic cyst