

Introduction

Hospital Temenggung Seri Maharaja Tun Ibrahim, known as Kulai Hospital, is a 93-bed district hospital without a dedicated surgical ward with a single operating theatre shared by various disciplines. Although elective cases from HSA are already being performed in this hospital for more than two decades, the general surgical discipline is expanding the services to include emergency procedures and outpatient and inpatient care. Despite multiple challenges and limited resources, the team managed to improvise the surgical services in this hospital. Here we present the expansion of surgical care over six months and discuss the various obstacles faced by clinician.

Key words

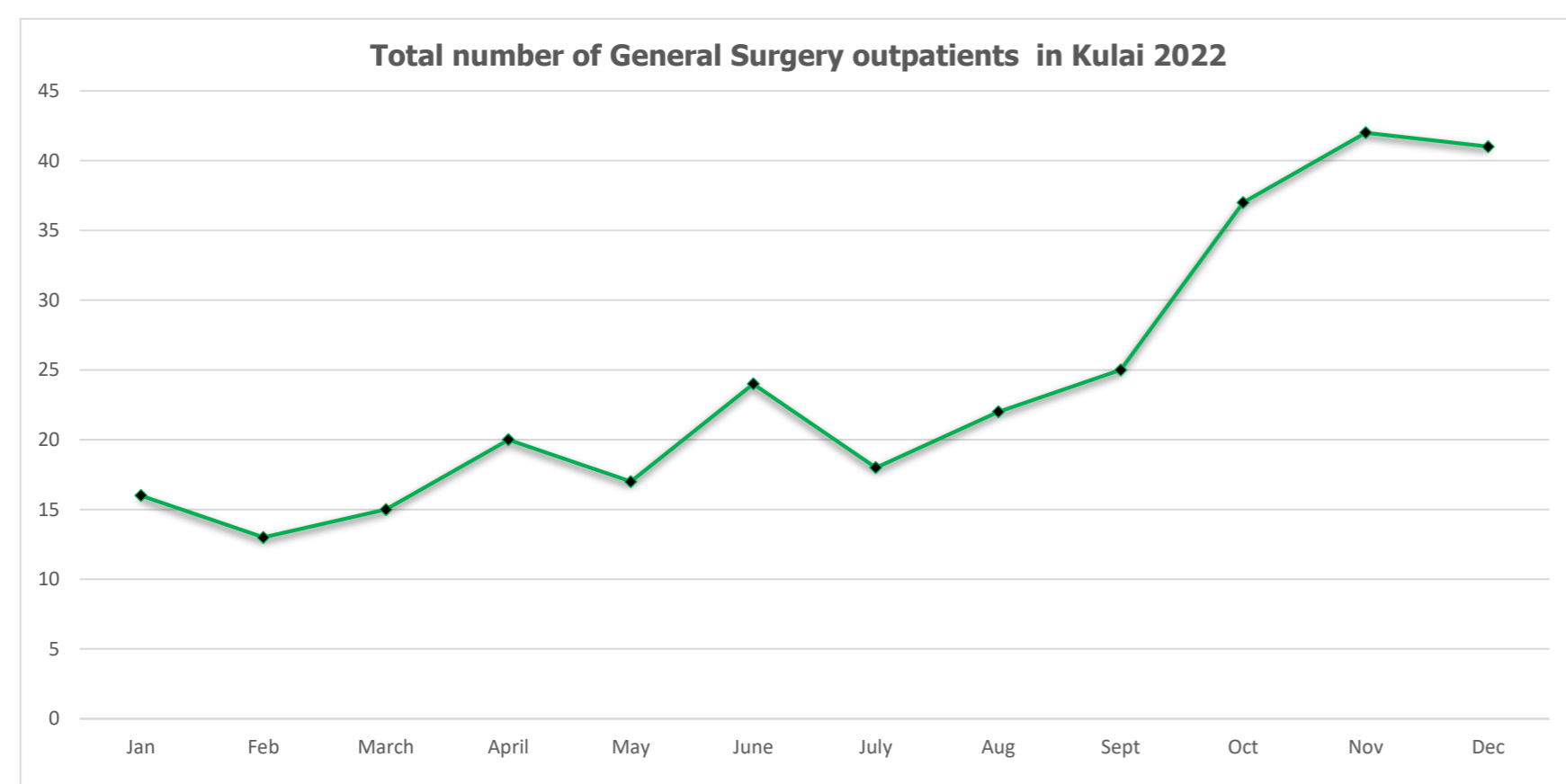
Global Surgery, General Surgery at Kulai, Kulai Hospital

Method

Five surgeons from Hospital Sultanah Aminah (HSA) have been on a weekly rotation at Kulai Hospital since July 2022. They were in charge of the allocated week's elective and emergency surgeries. Moreover, the surgeons also provide outpatient and inpatient care. Therefore, the elective and emergency surgeries, outpatient visits and inpatient referrals data were collected and analysed after six months.

Results

The surgeons performed 220 elective and 38 emergency surgery cases (15% of total surgical cases) over the 6 months. Due to the inavailability of intensive care and advanced radiological imaging (other than xray machine), the emergency cases performed were limited to open appendectomy, open inguinal hernia repair, soft tissue debridement or drainage and minor trauma cases. Meanwhile, elective cases include thyroidectomy, breast surgeries, hernia repair, chemo port insertion, lump and bumps excision and proctology surgeries. The number of outpatient cases increased almost 3-fold since the introduction of the once-a-week clinic compared with once a month previously. In addition, the surgeons have directly seen the inpatient referrals at casualty and wards since the introduction of the new system. Therefore, the number of patients transported to HSA significantly reduced due to the availability of the in-house surgeon.



Discussion

Kulai Hospital is located approximately 30 kilometers from HSA, the state hospital. The main objective of promoting the global surgery concept in Kulai hospital is to decentralize the general surgery service in HSA. Despite the challenges such as limited of OT time and staff, we are still able to perform a number of emergency cases at Kulai over the past six months. Complex laparotomy and life threatening trauma cases are not suitable to be performed at Kulai due to lack of intensive care unit and blood products. However initiation of emergency cases in Kulai leads to reduced OT waiting time and early discharge of patients in comparison to transferring patients to HSA for surgery.

Number of clinic sessions have been increased to weekly since availability of in house surgeons. The post operative follow up of both emergency and elective cases is provided at Kulai hospital without burdening the outpatient service at HSA. The new case referrals from both local private and government health facilities are channeled to Kulai and treated accordingly. The patients who are staying in Kulai with previous HSA surgical follow up clinic are encouraged to continue their further treatment in Kulai to ease both the patients and staff.

The availability of laparoscopic system and endoscopic service will further aid in the expansion of general surgery service in Kulai. More hospital beds and trained staffs are required to support the increasing number of patients from surgical discipline to provide preoperative and post operative care. Intensive care unit and availability of in house radiological service such as ultrasonography and Computed Tomography will assist in performing more complex emergency cases.

Conclusion

The implementation of global surgery practice in Kulai Hospital is unique as the primary aim was to decongest the state hospital (HSA) rather than provide people nearer access to the health centre. Despite many challenges that need to be addressed to achieve the goals of global surgery in the Kulai district, the improvisation of the services resulted in a satisfactory outcome.

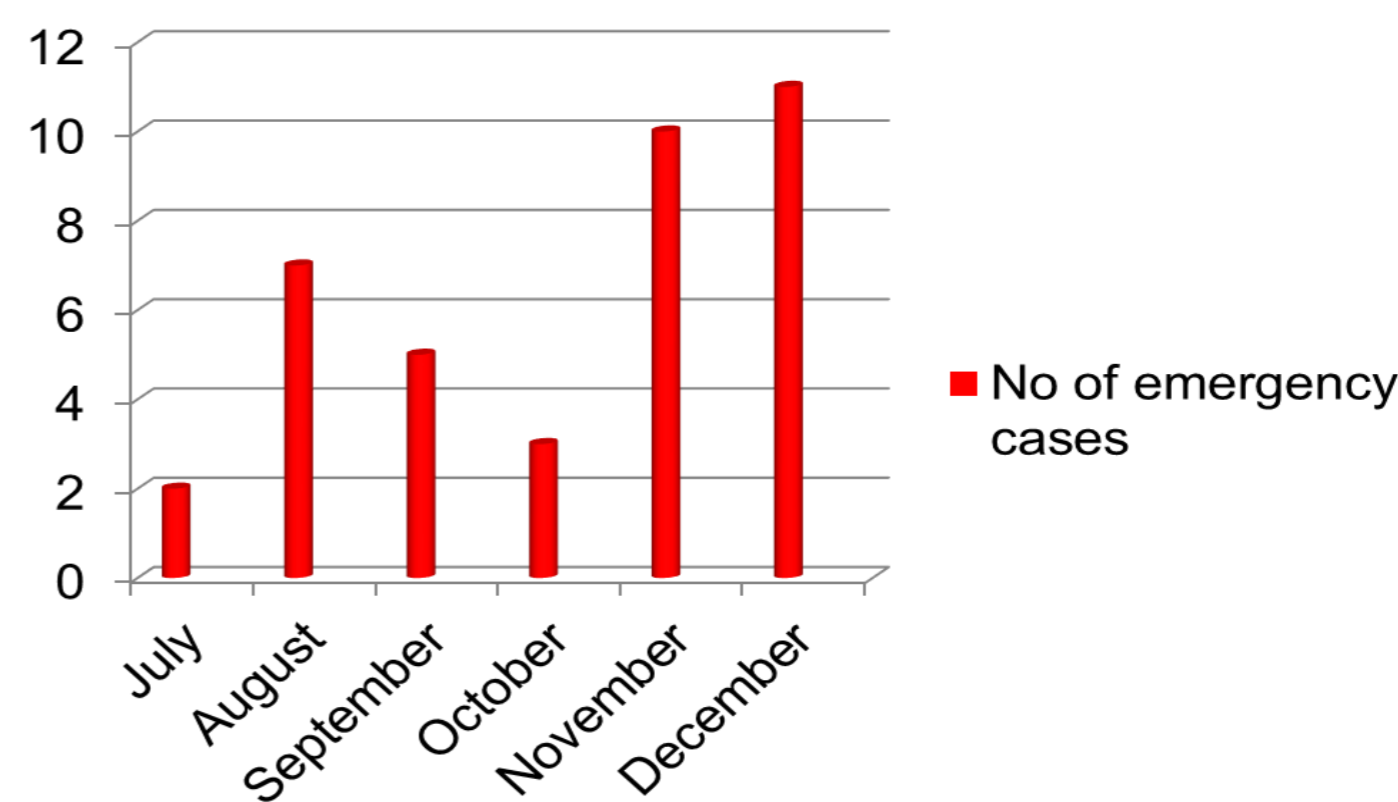


Figure 1: General Surgery Emergency Cases in Kulai July 2022 - Dec 2022

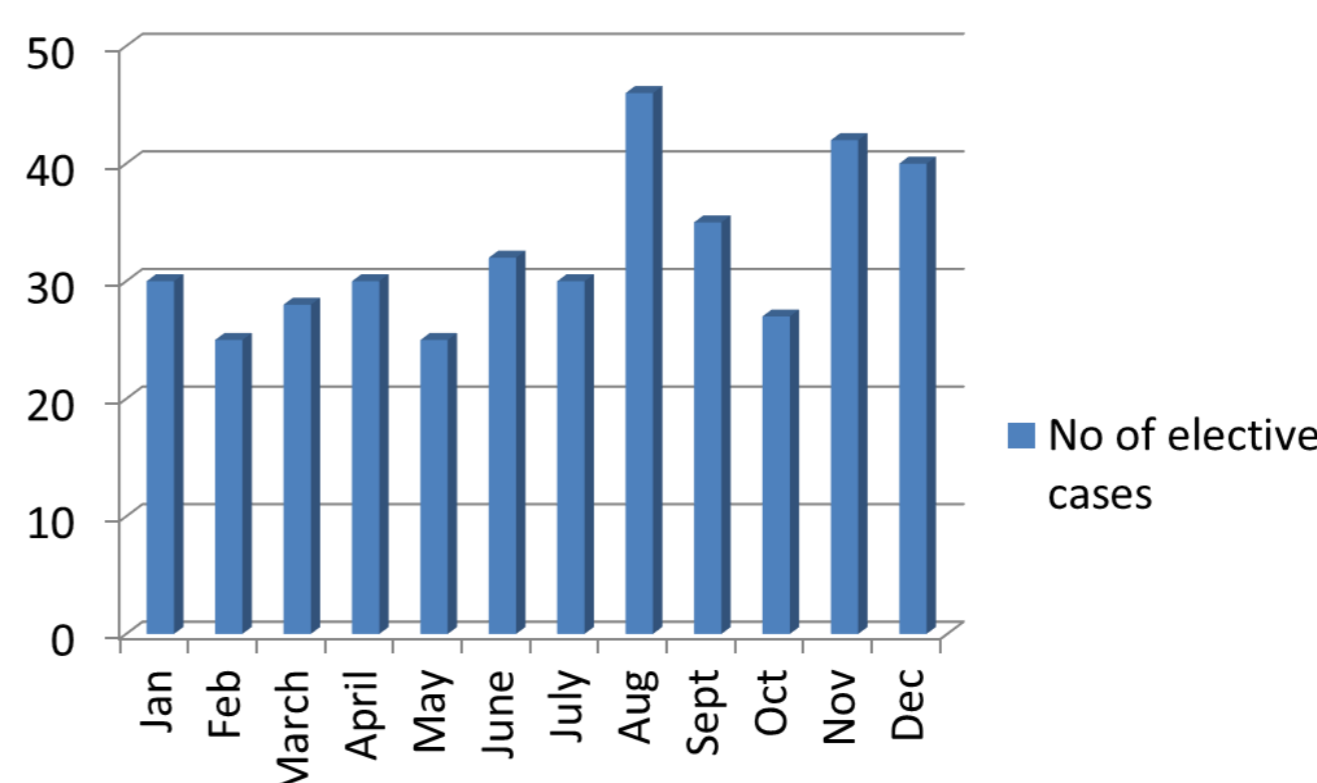


Figure 2: General Surgery Elective Cases in Kulai 2022

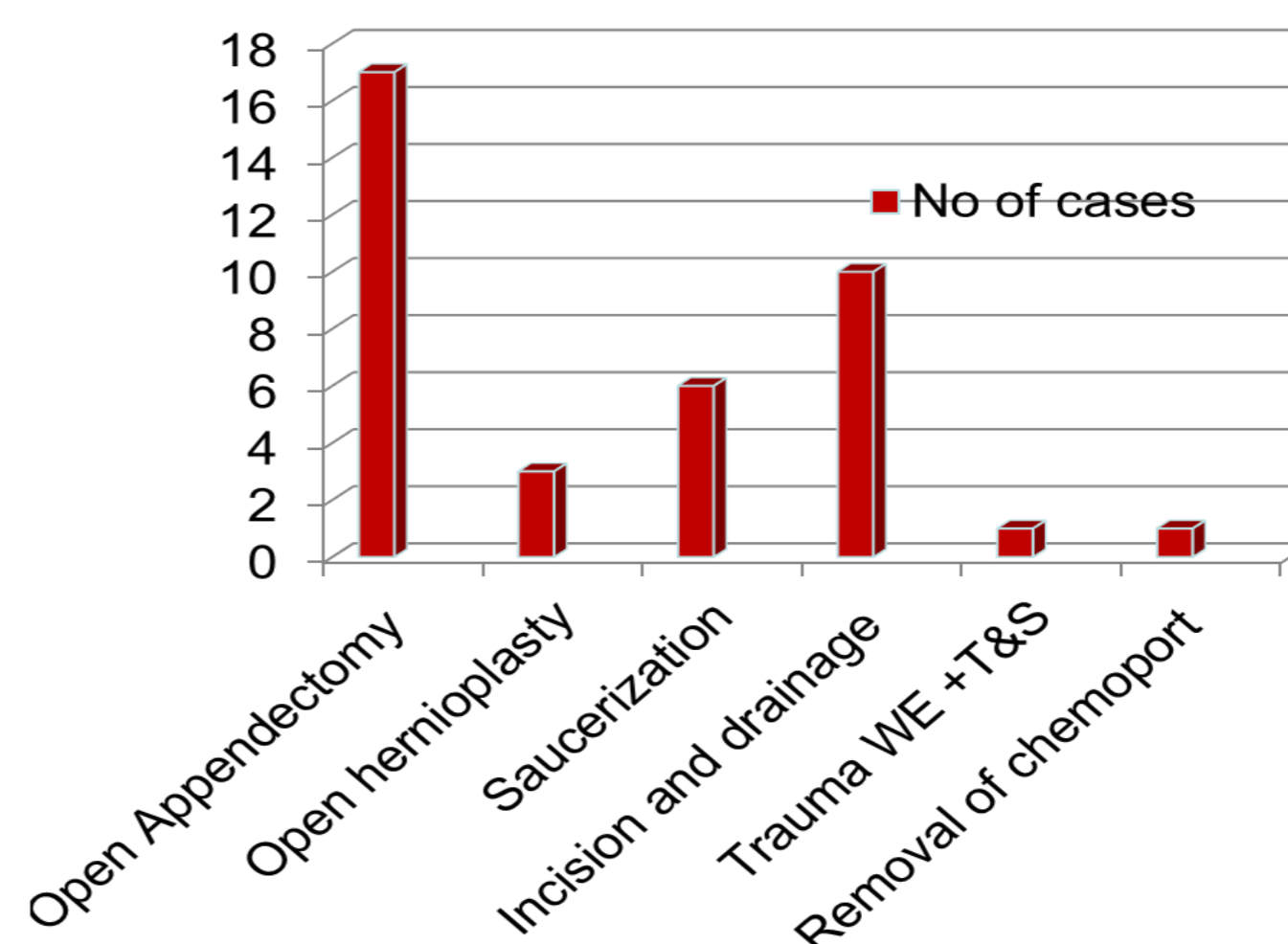


Figure 3: Type of General Surgery Emergency Cases in Kulai July 2022- Dec 2022

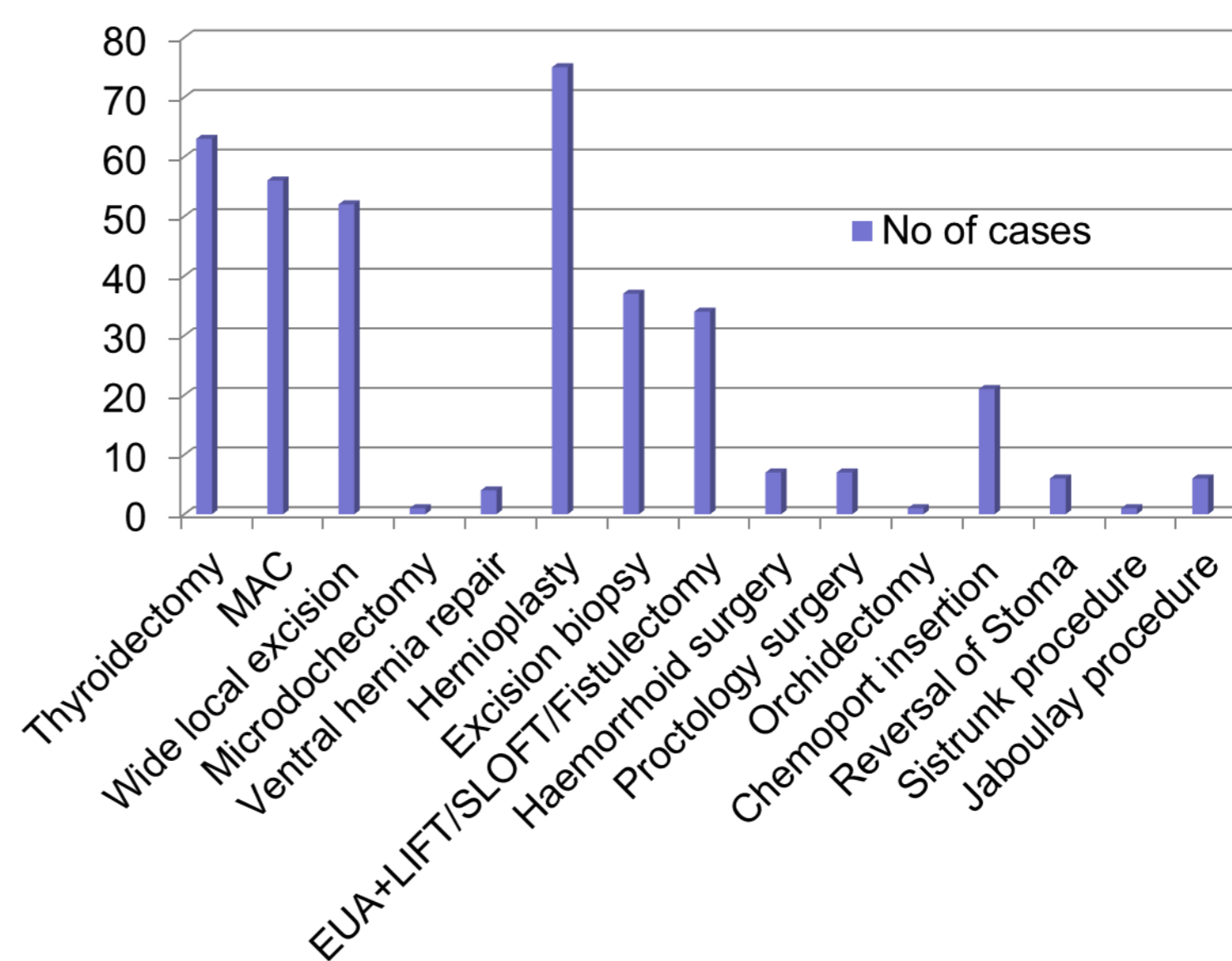


Figure 4: Type of General Surgery Elective Cases in Kulai 2022

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