# Laparoscopic Left Pancreatectomy: Does Exist a Learning Curve?

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**Context** Surgeons are performing laparoscopic left pancreatectomy (LLP) with increasing frequency. To our knowledge do not exist studies which defines learning curve (LC). **Objectives** To define a number of procedures needed to achieve LC in LLP. **Methods** From January 2008 to June 2012 data regarding 25 patients, undergoing LLP for pancreatic lesions, were collected in a prospective database. All procedures were performed by a single high volume surgeon in advanced laparoscopic and open pancreatic surgery. Decrease of the operative time (OT) was used as parameter to establish the achievement of LC. A preliminary multivariate analysis was carried out to establish which factors influenced OT. Correlation between OT and cumulative sum of procedure (CUSUM) was evaluated to calculate the LC cut-off. Finally multivariate analysis was repeated including LC cut-off. ANOVA test was used to estimate correlation and to calculate multivariate model. **Results** There were 18 (72%) females and 7 (28%) males with mean age of $55\pm16$ years and mean BMI of $27\pm5$ kg/m$^2$. Patients were more frequently ASA II (64%). Thirteen patients (52%) presented one or more co-morbidity and had a previous surgical abdominal procedure. Splenectomy was carried out in 18 (72% ) cases. An extended resection was conducted in 5 cases (20%). Mean operative time was $219\pm52$ min. Rate of conversion was 16%. Pathological examination showed only in 11 (44%) cases a malignant disease and none ductal adenocarcinoma. Preliminary multivariate analysis showed that splenectomy significantly decreased OT while size of lesion increased OT ($P=0.033$ and $P=0.041$, respectively). A significant inverse correlation was found between OT and CUSUM ($P=0.050$) and the LC cut-off was 14 procedures. Final analysis including LC cut-off showed that the achievement of LC cut-off reduced significantly OT ($P=0.047$). Instead BMI and extended resection independently increased OT ($P=0.030$ and $P=0.022$, respectively) **Conclusion** In our experience the number of procedure needed to achieve LC was 14 LLP. BMI and extended resection influenced OT even after the achievement of LC.