**ABSTRACT**

The Sleeve Gastrectomy is an ideal training procedure for introducing the robot into a bariatric surgical practice. This is a review of the first 10 robotic sleeve gastrectomies performed at a single institution describing the evolution of technique and initial outcomes.

**Methods**

Robotic Sleeve Gastrectomy was performed as a primary definitive procedure in 2015 by a team of general surgeons. The da Vinci robot Sx was utilized. Data was collected prospectively on all patients. The mean follow up time was 1 year. The length of stay, operative time, complications, and patient satisfaction were recorded. Data was prospectively collected.

**Results**

10 robotic Sleeve Gastrectomies were performed without any significant complications. One patient was treated as an outpatient with oral analgesia for a superficial wound infection. The mean total operating time was 126 minutes with a mean docking time of 22 minutes. The mean hospital stay was 3 days. Median weight loss at 6 months was 27.2kg with an average postoperative weight loss of 33.5%.

**Conclusion**

The Sleeve Gastrectomy can be performed safely and successfully using the da Vinci robot. Future work will be required to further refine the training program and to determine whether the robot will be able to perform this procedure as a day-case procedure.

**INTRODUCING THE DA VINCI ROBOT TO A BARIATRIC SURGICAL PRACTICE USING THE SLEEVE GASTRECTOMY – THE FIRST 10 CASES**

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**BACKGROUND**

The difficult surgical field in bariatric surgery makes it an ideal procedure to perform using the da Vinci robot. The da Vinci robot is designed to allow for a reduction in surgical time, lower incisions and thus less morbidity [1]. The aim of this study was to evaluate the outcomes of robotic sleeve gastrectomies in a single institution.

**METHODS**

The sleeve gastrectomy was performed using a single incision of 3 holes in the abdomen. All patients received epidural analgesia during the procedure and commenced on this post procedure. The length of stay ranged from 2 to 3 days. The 6 month follow up was at 6 months post procedure. Follow up was conducted by telephone, email and outpatient review. All patients signed an informed consent prior to the surgery.

**RESULTS**

The first 6 cases were completed using one of the robotic arms, with the da Vinci robot being the da Vinci 7000 and two arms performing the procedure. The patient demographics, operative time and length of stay are as follows:

- Initial 6 cases were completed using the da Vinci robot with one arm.
- The first case was performed using the da Vinci robot with two arms.
- The second case was performed using the da Vinci robot with two arms.
- The third case was performed using the da Vinci robot with two arms.
- The fourth case was performed using the da Vinci robot with two arms.
- The fifth case was performed using the da Vinci robot with two arms.
- The sixth case was performed using the da Vinci robot with two arms.
- The seventh case was performed using the da Vinci robot with two arms.
- The eighth case was performed using the da Vinci robot with two arms.
- The ninth case was performed using the da Vinci robot with two arms.
- The tenth case was performed using the da Vinci robot with two arms.

**CONCLUSION**

The sleeve gastrectomy can be performed safely and successfully using the da Vinci robot. Future work will be required to further refine the training program and to determine whether the robot will be able to perform this procedure as a day-case procedure.