INTRODUCTION:

- Obesity has increased globally and in the Regions like GCC (Gulf Council Countries) are labeled as the highest prevalence of increasing obesity.
- Bariatric surgery in the Region has increased steadily for the last 10 years.
- Bariatric surgery in the region has been shown safe and efficient treatment for severe obesity BMI > 35.
- In Oman, for the recent years there was an increase trend of bariatric surgery practice in private hospitals.
- However, The use of Gastrografin Study Post-Operative in Bariatric Practice still a common practice in Oman.

OBJECTIVES:

- To assess the benefits of the Gastrografin study post-bariatric surgery compare to the other group who did not have the Gastrografin study.
- Is it Safe to Omit the Gastrografin study post-bariatric patients in view of increase demand to bariatric surgery in private practice.
- This Study is frequently done after Laparoscopic sleeve gastrectomy.
- To assess the side effects of the study in Application of ERAS (Enhanced Recovery After Surgery).

METHODOLOGY:

- The retrospective data collection of 100 cases from two different private hospitals. Each hospital is 100 patients (The first hospital where the gastrografin study done and available, the second hospital where the gastrografin not done because the service is not available).
- Only patient who underwent laparoscopic sleeve gastrectomy were collected.
- The gastrografin study was done next day with 100 cc contrast.
- The patients were informed that they will not receive the gastrografin study in the second hospital.
- The survey was same in both hospitals.

Statistics:

<table>
<thead>
<tr>
<th>Hospital</th>
<th>No. Of patients</th>
<th>Gender</th>
<th>Mean BMI</th>
<th>Sleeve gastrectomy</th>
<th>Sleeve gastroctomy + laparoscopic cholecystectomy</th>
<th>Sleeve Gastroctomy + hernia repair</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Hospital</td>
<td>100</td>
<td>63 F</td>
<td>45 +/- 5</td>
<td>92</td>
<td>5</td>
<td>3</td>
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<td></td>
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<td>37 M</td>
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</tr>
<tr>
<td>Second Hospital</td>
<td>100</td>
<td>52 F</td>
<td>48 +/- 5</td>
<td>89</td>
<td>7</td>
<td>4</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>48 M</td>
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<tr>
<td>Surgery time</td>
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<tr>
<td>Hospital stay in days</td>
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<td>Complications</td>
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</table>

First Hospital (Gastrografin done): 90 +/- 20, 2-3, 1-Leak
Second Hospital: 90 +/- 20, 1-2, Nil

The Leak Case:

- 23 years old male patient with weight of 180 kg and height 180. BMI is 50 Non-metabolic Morbid obesity.
- The gastrografin study done in post-operative day 1 and found to have no leak with normal passage through the sleeve to the duodenum.
- 2nd day post op patient waking complaining of severe left sided chest pain more with oral intake.
- The patient Tachycardia 110-120 and WBC was 22 with Fever of 38 and CRP of 380.
- He was treated with Re-do laparoscopy and re-atturting of the leak area which was at the GOJ, 3 large drains and left sided chest tube because of large pleural effusion. Then he was stented with mega stent and stent removed after 6 weeks. He did very well after that with no further sequelae.

Observations:

- 1- The patients who received the Gastrografin study were more worried of the leak test and kept asking about the results
- 2- The patients who received the Gastrografin study had some nausea, vomiting, abdominal cramps in and after the procedure.
- 3- The Cost was more with the patients who received the Gastrografin study as they waited till next day to start orally.
- 4- The patients who did not received the Gastrografin study were more ERAS oriented as they started earlier orally and were much prepared for discharged next day of the surgery.

The Conclusion:

- As a routine measure for detection of leak, most surgeons obtain contrast swallow in day 1 post-surgery. Previous studies done that showed routine use of contrast swallow after SGE is not needed, moreover it has low sensitivity.
- In our study, the leak case was not detected by gastrografin study and patient was allowed orally and the leak was suspected based on the clinical condition deterioration of the patient.
- The routine use of Gastrografin study is not necessary esp. in private practice as it increased the cost, low sensitivity and delay the ERAS pathway.

REFERENCES:
1- World Health Organization Global status report on non-communicable diseases 2016