**BARIATRIC SURGERY**

Student's name

Department

Course

Professor

Due Date

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Bariatric surgery is an umbrella of different procedures that help normalize metabolism including blood pressure and cholesterol, it involves making changes to your digestive system to help lose weight. It has also proven satisfactory results in treating class (111) obesity. It is done when diet and exercise have not worked or when one has serious health problems because of their weight. These procedures work by limiting how much one can eat; others by reducing the body's ability to absorb fat and calories while some procedures do both (Arterburn et al., 2020). As much as bariatric surgery offers many benefits, all forms of bariatric surgery are major procedures that can pose risks and side effects. Thus, one must make permanent healthy changes to their diet and get regular exercise to help ensure the long-term success of bariatric surgery.

If one qualifies for bariatric surgery, he/she must be prepared by the health care team and given instructions on the specific type of surgery they need. Bariatric surgery is done under general anesthesia. The specifics of the surgery depend on the individual's situation, the type of weight loss you have, and the hospitals or doctors' practices (Arterburn et al., 2020). The healing process depends on the procedure and therefore one may need to stay a few days in the hospital. There are different types of bariatric surgery i.e.; gastric bypass, sleeve gastrectomy biliopancreatic diversion with duodenal switch, gastric band, etc.

The laparoscopic sleeve gastrectomy; is performed by removing approximately 80% of the stomach. The stomach is freed from organs around it. By removing the portion of the stomach that produces most of the "hunger hormone", the surgery affects metabolism. It decreases hunger, increases fullness, and allows the body to reach and maintain a healthy weight as well as blood sugar control (Arterburn et al., 2020). The simple nature of the operation makes it very safe without the potential complications from surgery on the small intestines. It has its advantages ie; may be performed as the first step for patients with severe obesity, is technically simple and shorter surgery time, and can be performed in certain patients with high-risk medical conditions. It also has its disadvantages i.e.; it's a non-reversible procedure, may worsen or cause new onset reflux and heartburn, and it also has less impact on metabolisms compared to bypass procedures.

Roux-en-Y Gastric Bypass (RYGB) also called "gastric bypass" is one of the most common operations and is very effective in treating obesity-related diseases. The food does not come into contact with the first portion of the small bowel and this results in decreased absorption. Most importantly, the modification of the food course through the gastrointestinal tract has a profound effect on decreasing hunger, increasing fullness, and allowing the body to reach and maintain a healthy weight (Van et al., 2022). The impact on hormones and metabolic health often results in the improvement of adult-onset diabetes even before any weight loss occurs.

The operation also helps patients with reflux(heartburn) and often the symptoms quickly improve. It has its advantages such as Reliable and long-lasting weight loss, effective for the remission of obesity-associated conditions in addition to being a refined and standardized technique. However, its disadvantages include; being technically more complex when compared to sleeve gastrectomy or gastric band, and there are more vitamin and mineral deficiencies than sleeve gastrectomy (Van et al., 2022). Moreover, there is a risk for small bowel complications and obstruction, and there is the risk of developing ulcers, especially with NSAID or tobacco use, and may cause dumping syndrome.

* Adjustable Gastric Band (AGB

A device made of silicone is placed around the top part of the stomach to limit the amount of food a person can eat. Its advantages are that; there is the lowest rate of complications early after surgery, no division of the stomach or intestines, patients can go home on the day of surgery, the band can be removed if needed as well and it has the lowest risk for vitamin and mineral deficiencies. Its disadvantages include; slower and less weight loss than with other surgical procedures, there is a risk of band movement (slippage) or damage to the stomach over time (erosion), it requires a foreign implant to remain in the body, and there is a high rate of re-operation (Van et al., 2022). Moreover, it can result in swallowing problems and enlargement of the esophagus.

**Biliopancreatic diversion with duodenal switch (BPD/DS)**

This begins with the creation of a tube-shaped stomach pouch. The food stream bypasses roughly 75% of the small intestines, the most of any commonly performed approved procedures. This results in a significant decrease in the absorption of calories and nutrients. Patients must take vitamins and mineral supplements after surgery. Even more than gastric bypass and sleeve gastrectomy, the BPD-DS affects intestinal hormones in a manner that reduces hunger, increases fullness, and improves blood sugar control (Alalwan et al., 2021). It is considered to be the most effective approved metabolic operation for the treatment of type 2 diabetes. It is also said to be among the best results for improving obesity.

furthermore, it also affects bowel hormones to cause less hunger and more fullness after eating. Its disadvantages include; It has slightly higher complication rates than other procedures, the highest malabsorption and greater possibility of vitamin and micronutrient deficiency, reflux and heartburn that can develop or get worse, risk of looser and more frequent bowel movements as well as being the most complex surgery requiring more operative time. Single Anastomosis Duodeno-Ileal Bypass with Sleeve Gastrectomy (SADI-S) (Alalwan et al., 2021). It is the most recent procedure to be endorsed. While similar to the BPD-DS, the SADI-S is simpler and takes less time to perform as there is only one surgical bowel connection. When a patient eats, food goes through the pouch and directly into the latter portion of the small intestines.

The food mixes with digestive juices from the first part of the small intestines. This allows enough absorption of vitamins and minerals to maintain healthy levels of nutrition. This surgery offers good weight loss along with less hunger, more fullness, blood sugar control, and diabetes improvement. Its advantages include; being highly effective for long-term weight loss and remission of type 2 diabetes, simpler and faster to perform than gastric bypass or BPD-DS, and an excellent option for a patient who has already undergone sleeve gastrectomy and seeking further weight loss (Alalwan et al., 2021). It also has its disadvantages such as; vitamins and minerals are not absorbed as well as in the sleeve gastrectomy or gastric band, Newer operation with only short-term outcome data, the potential to worsen or develop new-onset reflux as well and the risk of looser and more frequent bowel movements

There are risks just like any major procedure that pose potential health risks, both short-term and long-term. Short term includes; Excessive bleeding, infection, reactions to anaesthesia, blood clots, lung or breathing problems, and leaks in one's gastrointestinal system. Long-term risks and complications include; bowel obstruction, dumping syndrome, gallstones, hernias, gallstones, malnutrition, ulcers, acid reflux, hypoglycemia, and vomiting. Bariatric surgery provides a tool for long-term weight management, but it requires a commitment to lifestyle changes, including a balanced, nutritious diet and regular exercise (Maroun et al., 2022). Thus, this not only emphasizes what one needs to eat but also how much because the surgery can restrict the quantity of food the body can manage.

However, before one considers surgery, I believe it is important to talk to an obesity specialist about the suitable approach to improve their weight-related health conditions. Weight management is a lifelong journey, so over time, a person may try numerous approaches and review their progress toward their goals at each stage. The combination of bariatric surgery and a comprehensive treatment plan may be an effective way to maintain long-term weight loss and good health. The benefits include Improved longevity (Maroun et al., 2022). Improvement or cure of obese-related conditions.Long-term weight loss success maintenance. Fat metabolism- hormones like insulin and cortisol are reduced, which helps lower the body's storage of fat, as one loses more weight, they can carry out a lot of physical activities. This improves the body's ability to burn fat.

Better quality of life -Many patients have reported a better quality of life after the procedure including better mobility, reduced depression and anxiety, improvement in self-esteem, social interactions, and sexual function. As much as bariatric surgery has its benefits it also poses its negative side such as the medical conditions one previously had can worsen after surgery. One may be at an increased risk of depression especially if they had previously experienced it before surgery (Süsstrunk et al., 2023). The long-term complications are likely to occur after surgery. One has to eat specific types of foods that are highly nutritious and full of minerals and those who are planning on having kids should walk closely with the doctor.

In my opinion, having bariatric surgery is worth the risk because its benefits outweigh its disadvantages simply because the percentage rate of success is higher than that of failure. It has been able to solve a lot of health conditions as well as bring a lot of people back to a manageable weight that is easy to maintain and reduce obesity incidences that otherwise may not be preventable because diet alone does not seem to be enough. It helps to decrease mental health problems such as anxiety and depression caused by obesity stigmatization. If I were in a situation that requires me to do bariatric surgery after trying every aspect of weight loss with no success rate bariatric surgery would be my choice (Süsstrunk et al., 2023). A specialist doctor in a good hospital will lead to few side effects that are manageable and even result in a good outcome.

**References**

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