Complications of gastric bypass surgery: review

Complicações da cirurgia de *bypass* gástrico: revisão

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ABSTRACT

Literature review primarily focuses on the methods associated with reducing post operation complications that can occur as a direct result of gastric bypass surgery. These complications encompass nutritional deficiencies, internal hemorrhaging, hernias, possible bowel obstructions, venous thromboembolism and even infections in some cases. It is due to this that this paper delves into the various methods that can be utilized in order to address these complications in a reasonable fashion.

Key words: Gastric bypass. Complications. Morbid obesity.

INTRODUCTION

Gastric bypass surgery is surgical procedure (though less invasive methods have been developed through the use of surgical robotic arms) that focuses on reducing the functional volume of the stomach[1]. This process is done in order to alter an individual's physiological response to food by constraining the amount that can be eaten during certain periods of the day. The process involves separating the stomach into two distinct parts which help to reduce the overall size of the stomach to limit the amount of food that can be consumed at any given time. The upper pouch, which differs in size depending on the decided process, is normally constrained into the size of a fairly large apple. This helps to address the feeling of "satiation" normally associated with consuming sufficient volumes of food to feel full[2]. Gastric bypass surgery performed to aid patients who are suffering from extreme obesity, sleep apnea or even diabetes in some cases[3]. However, it should be noted that due to the surgically invasive nature of the procedure combined with the alterations done on the normal functions of the digestive system, this can result in a considerable number of potential complications. These encompass, but are not limited to, internal hemorrhaging, hernias, possible bowel obstructions, venous thromboembolism

and even infections in some cases. Aside from this, there is also the potential for nutritional deficiencies to occur due to the lack of sufficient food intake due to the reduced volume of the stomach. It is based on these issues that this paper will delve into the various methods that can be utilized to reduce post operation complications in patients that have recently had gastric bypass surgery.

METHODS

This is a literature review primarily encompassing post operation complications and their solutions. As such, the research method primarily centered on document analysis and focused on the ideal methods that can be implemented to limit the amount of risk that patients are exposed after their surgery

INFECTION

One of the most common post operation complications that can occur after any surgical procedure and gastric bypass surgery is not an exception, are infected incisions within the abdomen. The reason behind these infections is due to the apparent release of bacteria within the bowels of a person while they are undergoing gastric bypass surgery[4]. If left untreated or undetected, this can result in gangrene, blood poisoning and even death in some cases. It is due to this that it is highly recommended that daily examinations of the incisions be conducted as well as bi-weekly blood tests in order to look for infection[5]. If an infection is detected, it is recommended that antibiotics be utilized in order to immediately prevent it from spreading into the rest of the body.

HEMORRHAGING

Aside from potential infections, another common post operation complication is internal hemorrhaging brought about through the various blood vessels that are cut in order to get into a person's stomach and reduce the size of their bowel[6]. This can at times result in intra-abdominal hemorrhaging wherein a person bleeds into their abdomen or in some worse case scenarios gastrointestinal hemorrhaging which occurs when a person bleeds into the bowel itself[7]. This particularly serious given the potential for blood loss as well as the accumulation of blood in certain sections of the body which could result in blood poisoning later on[8]. Constant observation is needed in order to detect if certain "lumps" are forming in the patient wherein re-operation may be necessary in order to address such concerns. Aside from this, post-op transfusions are also recommended in cases where there is the potential for internal hemorrhaging, especially in cases where blood thinners were used during the operation[9].

BOWL OBSTRUCTION

Due to the nature of abdominal surgeries, some scarring within the bowl is inevitable. However, during worst case scenarios, the bowl can actually become "trapped" so to speak by the scarring resulting in the creation of an obstruction[10]. The inherent problem with this is that it can create a buildup of fluids and other elements within the bowel which can either cause considerable discomfort or even death in cases where the obstruction builds up to the point that in causes the contents to putrefy[11]. In order to address this issue, it is normally the case that further surgery is needed in order to address the issue of the blockage by removing the scar tissue and ensure that it will not happen again[12].

ADDRESSING NUTRITIONAL DEFICIENCIES

Due to the reduced volume of the stomach, this limits the amount of food that a person can consume per sitting. While this helps to address the issue of obesity in some individuals, the fact remains that this also limits a person's capacity to be able to eat enough to maintain a healthy body[13]. It is based on this that it is highly recommended for people who have received gastric bypass surgery to take supplements in the form of protein powders, vitamin supplements and other forms of meal replacement alternatives so that they can consume the necessary amount of nutrients to properly maintain their body's health[14]. One of the advantages of utilizing this method is connected to the fact that due to the caloric content clearly being written on the labels of the meal replacement alternatives, this ensures that patients can determine how much would be necessary to consume to fall within the recommended daily intake of that specific type of supplement[15].

TREATMENT

Based on what has been presented so far, it can be seen that the recommended methods for reducing post operation complications ranges between invasive and non-invasive procedures. Do note that these methods are a direct result of the inherently complicated nature of gastric bypass surgery and, as such, it shows why the procedure is normally considered one of the last resorts when it comes to helping people with their weight loss issues.

CONCLUSION

Based on what has been presented so far, it can be seen that this paper has delved into the various methods that can be utilized to reduce post operation

complications in patients that have recently had gastric bypass surgery. It is due to this that it is highly recommended that gastric bypass surgery be used as a method of last resort when it comes to dealing with weight loss issues due to the considerable amount of complications that can arise.

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