

SPEAKER 1: We recently reported in the *American Journal of Transplantation* our results of a preliminary study looking at the combination of liver transplant with a bariatric surgical procedure, a weight loss surgery called the gastric sleeve resection. We combined these two procedures in patients who did have, basically what we would consider refractory obesity or excess weight that they were not successful in losing prior to transplant despite really working very hard at obtaining weight loss prior to liver transplant.

So in a selected group of patients who were unsuccessful with weight loss prior to liver transplant in which their obesity was a likely component of their liver disease, we combined liver transplant with gastric sleeve resection and we reported our results in that series of patients. It was a small series of eight patients who underwent this combined procedure. And we found essentially that the procedure was safe and it appeared to be effective, at least with a short one year follow up. It seemed to be effective in resulting in excellent weight loss, control of other complications of obesity, such as diabetes, and we at the one year follow up marked no evidence of return of fat in the liver of patients who underwent the combined surgery.

We reported our outcomes in the patients who did not have the weight loss surgery because they were successful with weight loss in the same series and those patients actually many of them did have recurrence of their obesity post-transplant. So at least in a preliminary finding, this does appear to be a potential strategy that we could employ going forward in patients with the combination of obesity and end stage liver disease who require a liver transplant.

The most important thing to know is that our data is preliminary. We don't have a large experience to date, but this is a very important area going forward, given the high incidence of obesity in the population as well as the incidence of liver disease. Currently, obesity related liver disease is one of the fastest rising indications for liver transplant. And certainly in the future, this is going to be a really important area to have a clear strategy for patients with this combination of obesity and end stage liver disease.

The procedure is performed in conjunction with the liver transplant. A patient is first successfully undergoes a liver transplant. If the liver allograft appears to be functioning, the patient is stable, we then proceed to the gastric sleeve resection. And that all is done at the same time. In our experience, it did not noticeably increase our operative time.

The gastric sleeve resection is a weight loss operation that creates a small, basically a small sleeve. The stomach is converted into a small tube rather than being a larger reservoir. And this then restricts the total amount of food that a patient can take in at a certain time. So it's considered a restrictive weight loss operation, as opposed to the standard weight loss operation, which is a gastric bypass, which combines a small gastric pouch, a restrictive procedure with a malabsorbed procedure. This surgery does require, basically it's a longer procedure with more connections that need to be done and the gastric sleeve is a simpler procedure, which is why we selected that option. And the weight loss typically would be slower in this operation, which we think would be favorable in the combined operations.