Fiber-optic spectroscopy shows gastric conduit ischemia, which predicts post-operative development of anastomotic complication.

### Results
- Saturation decreased and blood content increased during surgery.
  - Ischemia ($S < 0.282$) was predictive of anastomotic failure, while blood content ($B > 0.0127$) was less predictive.

### Conclusions
- The saturation data expressed as a fraction of the baseline value shows that after creation of the gastric conduit, patients who experienced postoperative anastomotic leak or stricture had only 40% of their baseline saturation, versus patients without complications who had 87%.
- FOS can predict which patients are more likely to develop anastomotic complications by identification of ischemic injury that compromises tissue viability and healing at the tip of the gastric conduit.
- Future studies will explore the use of FOS to direct intra-operative care using implantable probe.
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