



# THE IMMUNONUTRITION IN SURGICAL ONCOLOGY THERAPY: CASE REPORT

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## Background and aims

New scientific evidence shows that immunonutrition modulates the tumor microenvironment and plays a protective role from increasing inflammatory markers underlying tumor development. The results highlight the main benefits of immunonutrition in modulating the tumor microenvironment and activating the immune system, both in patients' postoperative recovery and during cancer treatment. The results demonstrate the synergistic efficacy of the 3 immunonutrients (arginine, omega-3, and nucleotides) in both the peri-operative phase and during antineoplastic treatments. In fact, immunohistochemical analysis showed that immunonutrition promotes the antineoplastic immune response by increasing T-cytotoxic and T-helper lymphocytes and reducing T-heuristic and T-reg lymphocytes, suppressing the tumor's ability to evade the immune system. Our aim was to test the efficacy of immunonutrition in a patient who was to undergo gastrectomy surgery.

## Methods

The patient, a 55-year-old man, was proposed to start an immunonutrition course with a product to be taken ten days before surgery and for one month afterwards. The surgery was performed in June 2022, total gastrectomy with resection of the tail of the body of the pancreas, epigastric splenectomy and packing of the esophago-digiunal anastomosis.

## Results

The surgical wound never became infected; the patient resumed oral feeding about 20 days after surgery. Ongoing well condition

## Conclusions

Immunonutrition was associated with:

- Significantly reduced risk of postoperative infectious complications.
- Reduced risk of wound infection.
- Reduction in the risk of anastomotic dehiscence.
- reduction of hospital stay.

Further studies confirming the results are hoped for.



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