Locally-Advanced Adenocarcinoma

1 Intro

I'm Dr Jonathan Salo, a GI Cancer Surgeon at the in Charlotte, North Carolina If you're seeing this video, changes are you or someone close to you has had an encounter with esophageal cancer. These videos are designed to educate you about cancer and its treatment and help you and you cancer care team make the right decisions for you.

Of course, there is no substitute for the expert opinions of your cancer care team.

4 Esophageal Cancer (2)

For a refresher, esophageal cancer, as it grows, can tends to make it difficult for patients to swallow.

So patients with esophageal cancer fit into two main groups:

- A small group who don't have any difficulty eating that have *early* stage disease
- Majority of patients who have some difficulty eating or may have weight loss who have *advanced* disease.

Esophageal Cancer (3)

This video will focus on Advanced Stage Disease

We will post videos about early stage disease, so take a look in the description.

Advanced Stage Cancer (4)

Advanced esophageal cancer consists of two categories: Locally Advanced and Metastatic.

- Locally Advanced -> T3M0
- Metastatic -> M1

2 Metastatic Cancer:M1 (5)

Metastatic cancers are those that have signs of spread to other organs such as the lungs, liver, or bones.

These cancers are treated primarily with chemotherapy.

We have other videos that focus on metastatic cancers.

Locally-advanced: M0 (6)

Locally-advanced cancers are M0, which means there is no evidence of metastasis, or spread to other parts of the body. In addition, they are T3 or node-positive

Locally-advanced: T3 or N+ (7)

Locally-advanced cancers are not only M0, but they are T3 or node-positive.

If this terminology is not familiar to you, please refer to our video on Diagnosis and Staging. There is a link above and in the description below.

4 Types of Esophageal Cancer (8)

To make things a bit more complicated, there are two types of esophageal cancer: Adenocarcinoma and Squamous Cell Carcinoma.

The treatment is in many ways similar, but there are enough differences that we will have a separate video that focuses on squamous cell carcinoma.

Types of Esophageal Cancer (9)

This video will focus on locally-advanced *adenocarcinoma*

(6) Locally Advanced (10)

Locally-advanced cancers frequently have localized spread of cancer cells outside of the visible tumor.

Locally Advanced (11)

Surgery removed the visible tumor and the surrounding tissue, but does not always remove microscopic spread of cancer which can't be seen with the naked eye.

Locally Advanced (12)

If surgery is performed as the only therapy for locally-advanced cancer, there is a risk that cancer cells can be left behind

Locally Advanced (13)

Preoperative therapy is administered before surgery

Locally Advanced (14)

And is designed to kill cancer cells in the tumor, nodes, and any cancer cells in the surrounding area

Locally Advanced (15)

This therapy typically involves chemotherapy

Locally Advanced (16)

Which can circulate all throughout the body

Locally Advanced (17)

Chemotherapy can be combined with radiation in some cases

Locally Advanced (18)

The overall goal is shrinking the tumor and killing nearby cancer cells

Locally Advanced (19)

After preoperative therapy has shrunk the tumor and any other cancer cells, surgery can be performed

Locally Advanced (20)

Preoperative therapy combined with surgery offers the best chance to remove all of the cancer, without leaving any behind

(4) Adenocarcinoma Preoperative Therapy (21)

For adenocarcinoma of the esophagus, there are two different approaches to preoperative therapy.

One uses chemotherapy and radiation together, followed by surgery

The other uses chemotherapy before and after surgery, without radiation therapy

Chemotherapy + Radiation -> Surgery (22)

The chemotherapy and radiation strategy uses chemotherapy and radiation together

Chemotherapy is given intraveneously once per week for 6 weeks

Radiation is given five days per week for 6 weeks

Chemotherapy + Radiation -> Surgery (23)

The chemotherapy is a low dose, designed to make the radiation more effective

The therapy is generally well tolerated

(2) CROSS Clinical Trial (24)

The effectiveness of this approach was proven scientifically in the CROSS clinical trial

This was a scientific study published in 2010

363 patients with locally-advanced esophageal cancer were divided into two treatment groups:

One group was treated with surgery alone

The other group was treated with chemotherapy and radiation first, followed by surgery

CROSS Clinical Trial (25)

The results of the trial were quite dramatic: There was better control of the cancer in the group that received chemotherapy and radiation prior to surgery. This group had longer survival than the group treated with surgery alone.

CROSS Clinical Trial (26)

For the past 15 years, chemotherapy and radiation, followed by surgery, was established as the most effective therapy. This is known as trimodality therapy, beause it uses a combination of three different therapies.

(4) Adenocarcinoma Preoperative Therapy (27)

The second and somewhat newer approach to preoperative therapy for esophgeal adenocarcinoma is treatment with chemotherapy, followed by surgery, followed by additional chemotherapy

Chemo -> Surgery -> Chemo (28)

Chemotherapy is administered intravenously every other week for 4 doses over 8 weeks

Surgery is then performed 4-6 weeks later

Chemotherapy is again administered intravenously every other week for 4 more doses over 8 weeks

Chemotherapy Options (29)

There are two commonly used "recipies" for chemotherapy:

FLOT consists of four drugs

FOLFOX consists of three drugs

As you might expect, FLOT is more powerful against cancer, while FOLFOX is easier to tolerate

(2) Preoperative Therapy (30)

If we compare Chemotherapy + Radiation (or CROSS) with chemotherapy (FLOT)..

We see that Chemotherapy + Radiation has a longer track record and is better tolerated

A central venous port is usually placed to assist with chemotherapy

The radiation can lead to irritation of the lining of the esophagus called radiation esophagitis. One can think of this as a sunburn on the inside of the esophagus. The result is that the therapy can make eating temporarily worse before it gets better. Usually the last two weeks of radiation therapy are the worst. By two weeks after radiation is completed, the tumor has shrunk enough that eating is usually better than before therapy.

For this reason, a temporary feeding tube is frequently necessary for patients getting chemotherapy and radiation

Preoperative Therapy (31)

On the other hand, FLOT chemotherapy, administered both before and after surgery, has been shown to be more effective than chemotherapy and radiation.

FLOT chemotherapy, however, has more side effects than chemotherapy and radiation.

As the chemotherapy begins to work, patients who have trouble eating before therapy find gradual improvement in their eating. As a result, a feeding tube might be less likely used with FLOT chemotherapy.

Preoperative Therapy (32)

So we have two different approaches for therapy prior to surgery, and each has favorable and unfavorable features

Preoperative Therapy (33)

In general, we think that FLOT may be more effective, but CROSS is better tolerated

Preoperative Therapy (34)

A medical oncologist, who specializes in chemotherapy treatment, will make a recommnendation for preoperative therapy based upon a patient's age, overall health, and any medical problems such as heart disease or kidney disease.

Additional Topics (35)

We hope you have found this video helpful. Here are some other topics for which videos have been posted or are planned.

Feel free to leave a comment or a question, or if you have suggestions for future videos.

If you or a family member have had an encounter with esophageal cancer, I would love to hear about your experience, so please take a minute to leave a comment below.

We're constantly creating new videos, so please subscribe to be notified of new videos when we post them.