

## Review of oral cancer

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Oral cancer is a cancer which develops in the tissues of the mouth and throat and belongs to a large group of cancers called head and neck cancers. This type of cancers most develop in the squamous cells found in mouth, tongue, lips, inner lining of the cheeks, gums & hard and soft palate of mouth.

Oral cancer is a serious and growing problem in many parts of world. Oral and pharyngeal cancer considered as the sixth most common cancer in the world. As per a report of World Health Organization, There are an estimated 657000 new cases of oral and pharyngeal cancers detected every year and more than 330000 deaths. More than 90% of oral cancers are squamous cell carcinomas. Due to delay in diagnosis results poor quality of life and high mortality rate, since nearly 50% of oral cancer cases are first time diagnosis at an advance stage mean when they have spread to the lymph nodes of the neck. Early detection and early treatment are most helpful to improve the survival rate of patient with oral cancer.

### Risk factors for oral cancer

One of the biggest reasons behind oral cancer is tobacco use which includes smoking cigarettes, cigars as well as chewing tobacco. If a person consuming both alcohol and tobacco on regular basis then this is a greater risk factor for oral cancer. Except these there is also some other risk factors for oral cancer like –

- Human papillomavirus (HPV) infection
- Chronic facial sun exposure
- A previous diagnosis of oral cancer
- A family history of oral cancer or any other type of cancer
- A weakened immune system
- Poor nutrition
- Genetic syndromes

It is also found that males are twice as likely to get oral cancer as compared to women.

### Signs and symptoms

Common symptoms of oral cancer are –

- A growth anywhere in mouth
- Bleeding from mouth
- Sore on lip or mouth which won't heal
- Pain and difficulties in swallowing
- Loose teeth
- A lump in neck

- An earache which won't go away
- Feeling numbness in neck and chin
- White or red patches in or on mouth or lips
- A sore throat
- Jaw pain and stiffness

There are some symptoms which are very common but if they won't go away then it is necessary to consult with a doctor.

Squamous cell carcinomas may develop from oral potentially malignant disorders, such as leukoplakia, oral lichen planus, erythroplakia. It has been reported that early detection and management of oral epithelial dysplasia in oral potentially malignant disorders is a major step for preventing malignant transformation.

### Stages of oral cancer

Generally there are 4 stages of oral cancer.

Stage 1 is when the tumour is 2 centimetres or smaller than 2 centimetres, and the cancer hasn't spread to the lymph nodes consider as stage 1.

Stage 2 is when the tumour is between 2-4 cm and a cancer cell hasn't spread to the lymph nodes consider as stage 2.

Stage 3 is when the tumour is either larger than 4 cm and hasn't spread to the lymph nodes, or is any size and has spread to one lymph node, but not to other parts of the body consider as stage 3.

Stage 4 is when the tumours are any size and the cancer cells have spread to nearby tissues, the lymph nodes, or other parts of the body consider as stage 4.

As per a report of National Cancer Institute, the five-year survival rates for oral cavity and pharynx cancers are as follows:

- 83% chances of survival when cancer cells hasn't spread and we can say that localized cancer.
- 64% chances of survival when cancer cells spread to nearby lymph nodes.

38% chances of survival when the cancer cells spread to other parts of the body. But generally it is found that 60% of all people with oral cancer will survive for five years or more. In fact, the five-year overall survival rate in those with stage 1 and 2 oral cancers is typically 70-90%.

## Diagnosis

Oral cancers is diagnosed by physical examination of the oral cavity, such as visual inspection and palpation, provides valuable insight into a person's overall health in general and their oral health in particular. An external head and neck physical examination, such as palpation of lymph nodes, is an integral part of the assessment of oral health. Therefore, oral cancer screening with visual inspection and palpation requires not any special equipment and is not invasive.

If your doctor finds any tumours, growths, or suspicious lesions then they'll perform a brush biopsy or a tissue biopsy. A brush biopsy is a painless test that collects cells from the tumour by brushing them onto a slide. A tissue biopsy involves removing a piece of the tissue so it can be examined under a microscope for cancerous cells.

There is also some additional test carried out by doctors like –

- X-rays to see if cancer cells have spread to the jaw, chest or lungs etc.
- CT scan to reveal any tumours in mouth, throat, neck, lungs, or elsewhere in your body
- PET scan to determine if the cancer has travelled to lymph nodes or any other organs
- MRI scan to show a more accurate image of the head and neck, and to determine the extent or stage of the cancer
- Endoscopy to examine the nasal passages, sinuses, inner throat, windpipe, and trachea

## Treatment

There are various types of method applied for treatment of oral cancer which are as follows:

- Treatment for early stages oral cancer usually involves surgery to remove the tumour and cancerous lymph nodes. If any other tissue around the mouth and neck then that may be taken out.
- Radiation therapy is another option for oral cancer treatment. This involves a doctor aiming radiation beams at the tumour once or

twice a day, five days a week, for two to eight weeks. Treatment for advanced stages will usually involve a combination of chemotherapy and radiation therapy.

- Chemotherapy is a treatment with drugs that kill cancer cells. The medicine is given to you either orally or through an intravenous (IV) line. Most people get chemotherapy on an outpatient basis, although some require hospitalization.
- Targeted therapy is another form of treatment for oral cancer. It can be effective in both early and advanced stages of cancer. Targeted therapy drugs will bind to specific proteins on cancer cells and interfere with their growth.
- For every disease condition nutrition is also an important part and also for oral cancer treatment. Many treatments make it difficult or painful to eat and swallow, and poor appetite and weight loss are common. Make sure discuss diet with doctor. Getting the advice of a nutritionist can help to plan a food menu that will be gentle on mouth and throat, and will provide body with the calories, vitamins and minerals it needs to heal.

People who are diagnosed with advanced oral cancer will likely need reconstructive surgery and some rehabilitation to assist with eating and speaking during recovery.

Rehabilitation is also necessary for cases of advanced cancer. Speech therapy can be provided from the time you get out of surgery until you reach the maximum level of improvement.

Reconstruction can involve dental implants or grafts to repair the missing bones and tissues in the mouth or face. Artificial palates are used to replace any missing tissue or teeth.

## Conclusion

When oral cancer diagnosed in early stage then the chance of survival after treatment is high. Recovery from oral cancers depends on the specific type and stage of cancer at diagnosis. It also depends on general health, age and tolerance and response to treatment. Early diagnosis is critical because treating stage 1 and stage 2 cancers may be less involved and have a higher chance of successful treatment.

After treatment, your doctor will want patient to get frequent check-ups to make sure that patient recovering. Patient check-ups will usually consist of physical exams, blood tests, X-rays, and CT scans. Make sure to follow up with dentist or oncologist if notice anything out of ordinary.