

**Case reports**

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## Case reports

### Case – Head and Neck cancer.

**Patient identification:** MA, 50y, male. Referent physician Dr. M. Ali Memon

**CT diagnosis:** posteriorly mass is seen infiltrating masseter muscle. Posteromedially mass is also showing extension into the retro molar trigone with possible infiltration of the pterygoid muscle. However, no underlying bony erosion of alveolar process of mandible or maxilla is identified. There is evidence of multiple sub centimeter sized, as well as enlarged enhancing and necrotic lymph nodes seen in submental, right submandibular and at cervical level II on right side. Largest necrotic lymph node at cervical level II is measuring 2.0 x 2.3 cm. These are most likely malignant in nature.

- No significant cervical lymphadenopathy is seen on left side.
- There is no evidence of mass in the supra-glottic, glottic or infra-glottic region.
- The bilateral vocal cords, prelaryngeal spaces, valleculae and pyriform sinuses are normal.
- The pharynx and parapharyngeal spaces are normal.
- The laryngeal, arytenoid and cricoid cartilages are normal.
- Tongue and palatine tonsils show no gross pathology.
- Submandibular, parotid and thyroid glands show no lesion.
- Cervical vessels show normal course and caliber.
- Imaged sections through neurocranium and orbits show no gross pathology.
- Imaged sections through upper chest on mediastinal window show no gross pathology.

Large ill-defined enhancing soft tissue density mass is seen involving right buccal mucosa / right cheek with infiltration of the overlying subcutaneous tissues and skin with its ulceration. It is highly consistent with malignant neoplastic lesion.

Multiple sub centimeter sized, as well as enlarged enhancing and necrotic lymph nodes seen in submental, right submandibular and at cervical level II on right side. These are most likely malignant in nature.

**Biopsy** proved the malignancy.

**Indications:** K/C of neoplastic mass involving left cheek.

**Before oncothermia treatment**



**Therapy:** Oncothermia Monotherapy in first 3 sessions, then along with chemotherapy weekly in a low dose.

**After treatment** CT investigation: axial images were obtained before and after contrast. There is redemonstration of soft tissue density mass seen along the right buccal mucosa. It has markedly reduced in its dimension on comparison. It is again reaching up to the skin and involving the subcutaneous tissues in few sections. The lesion is extending up to the remolar trigone is also involving the masseter muscle. There is again extension into the bucco gingival recess. No definite cortical irregularity of mandible or maxilla is noted. Lesion now measures approximately 2.0 cm in maximum width. Previously it measured 4.5 cm in maximum width.

- Few lymph nodes are seen in submandibular region, these are all subcentimeter which have also reduced in size and number.
- There is no evidence of mass in the supra-glottic, glottis or infra-glottic region.
- The bilateral vocal cords, prelaryngeal spaces, valleculae and pyriform sinuses are normal.
- The oropharynx and parapharyngeal spaces are normal.
- The laryngeal, arytenoid and cricoid cartilages are normal.
- The thyroid gland shows no lesion.
- Nasopharynx and pterygoids appear normal.

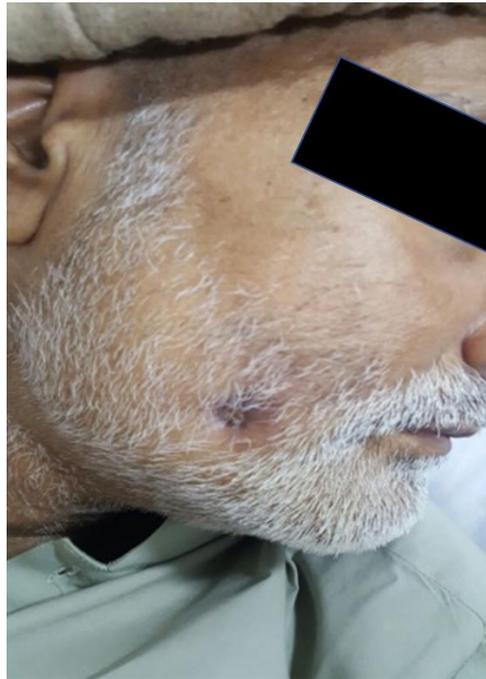
**After 5 sessions of oncothermia treatment along with low dose chemotherapy**



**After 8 sessions of oncothermia treatment**



## After completion of 10 sessions of oncothermia treatment



**Conclusion:** Oncothermia partly with low-dose chemotherapy, partly in monotherapy application made remarkable regression of the tumor.

### Case – Head and Neck cancer.

**Patient identification:** TQ, 61y, female. Referent physician Dr. Ahemed Usman

**Diagnosis:** Mammary carcinoma (left) and gastric (stomach) cancer

**Comorbidities:** hypertension, diabetes mellitus. When patient attended to our clinic, she had gangrenous foot (R) so amputation was already done above knee joint.

### CT scan before oncothermia treatment (Oct.2016)

#### CT scan chest

- Lobulated soft tissue mass in left breast 3.5cm x 1.5cm, adjacent skin thickening, few enlarge lymph node identified in left axilla largest one measuring 1.1cm. B/L moderate plural effusion seen.
- No evidence of parenchymal consolidation or cavitary lesion identified.
- No nodular shadowing or interstitial prominence seen in either lung fields.
- No evidence of any mass lesion seen.
- No evidence of pneumothorax on either side.
- On mediastinal window settings, few sub centimeter lymph nodes noted.
- Trachea and mainstem bronchi appear patent.
- Visualized esophagus appears normal.
- Normal enhancing mediastinal vessels noted.
- No enhancing nodule noted in both lung fields.

## CT abdomen

- Circumferential wall thickening of stomach at the antral fold up to pylorus it measures 1.3cm in maximum thickness along the lesser curvature. It is closely abutting the body of pancreas however no definite evidence of infiltration of pancreas noted on present examination.
- The lymph node inferior to stomach now measure 0.8 x 0.3cm. Another lymph node in gastrohepatic ligament measure 1.2 x 0.3cm.
- Gallbladder is not visualized (status post cholecystectomy).

**Treatment:** oncothermia was applied as monotherapy.

**Results:** CT scan after oncothermia monotherapy treatment

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<b>MR No:</b> 001337876	<b>Scan Date:</b> 22 Feb, 2017
<b>Name:</b> [REDACTED]	<b>Gender/Age:</b> Female /62 Year(s)
<b>Referred By:</b> DR..	<b>Imaging No:</b> 170282466

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MRI (1.5 Tesla)	CT Scan (Multi Slice)	Echocardiography	Elastography	Ultrasound with Colour Doppler
MRI Real open Magnet	Mammography	Fluoroscopy	Dexa Scan	X-Ray with CR & DR - VIF

**CT CHEST & ABDOMEN**

Multiple axial sections of CT scan of chest abdomen and pelvis were carried out after non-ionic IV contrast enhancement. Coronal and Sagittal reformations were also acquired. Imaging was performed on multi-slice (16 slices) scanner and reporting was done at workstation.

**Clinical Indication:**  
Known case of carcinoma breast and carcinoma stomach.  
Status post radiotherapy 10 cycles ✓  
Previous CT scan dated 1st October 2016 is compared

**Findings:**

**CT CHEST:**  
Previously seen mass lesion in left breast has shown interval reduction in size, previously it was measured 3.5 x 1.5cm. It now measures 1.3 x 1.8cm. ✓  
Previously noted few left axillary lymph node has also shown reduction in size, the largest lymph node was previously measured 1.4 x 1.6cm, it now measures 1.1 x 1.5cm. ✓  
Previously seen moderate bilateral pleural effusion shows complete resolution in current scan. ✓  
Small pleural based nodule measuring upto 3.4mm noted along posterior basal segment of left lower lobe. This is too small to characterize.  
Pleural based nodule measuring 3mm noted in apical basal segment of left lower lobe. Another pleural based nodule noted in right middle lobe measuring 3.9mm.  
These nodules require follow up.

Mild centrilobular emphysematous changes noted bilaterally.  
No evidence of enlarged mediastinal or hilar lymphadenopathy noted.

No evidence of parenchymal consolidation or cavitory lesion identified.  
No evidence of pneumothorax on either side.  
Trachea and main stem bronchi appear patent.  
Visualized esophagus appears normal.  
Normal enhancing mediastinal vessels noted.  
Bony thoracic cage appear unremarkable.

**CT ABDOMEN AND PELVIS:**

There is redemonstration of circumferential wall thickening noted in the region of distal stomach/antrum, previously the wall thickness measured 1.3cm. It has shown interval reduction and now the posterior wall in this region measures 7.8mm in maximum dimension. It is closely abutting body of pancreas which appear atrophic. ✓

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No evidence of any enlarged perigastric lymphadenopathy noted in current study. Few subcentimeter lymph nodes visualized.

There is interrupted calcific foci noted along the hepatic margin in segment VI.

Gall bladder is not visualized. Surgical staples noted at portahepatis. These findings are likely consistent with cholecystectomy.

Redemonstration of double IVC below the level of renal veins.

There is redemonstration of multiple calcified uterine fibroid.

Intra and extra hepatic biliary ducts are not dilated. Portal vein show normal opacification. No evidence of portal venous thrombosis.

Spleen appears normal. No evidence of focal mass seen.

Pancreas appears normal. No evidence of mass lesion noted.

Both adrenal glands and kidneys are enhancing normally. No evidence of focal mass, calculus or hydronephrosis noted.

Urinary bladder is smooth in outline, without evidence of cystitis, vesical calculus or intra luminal mass.

Visualized small and large bowel loops appear normal.

No evidence of lymphadenopathy noted.

No evidence of ascites or significant mesenteric stranding noted.

On appropriate bone window settings, degenerative changes seen in spine.

**Impression:**

Previously seen mass lesion in left breast and left axillary lymph node has shown interval reduction in size.

Previously seen moderate bilateral pleural effusion shows complete resolution in current scan.

Few tiny pleural based nodule noted in both lungs as described above, these nodules require follow up.

There is redemonstration of circumferential wall thickening noted in the region of distal stomach/antrum, it has shown interval reduction.

No evidence of any enlarged perigastric lymphadenopathy noted in current study.

Overall findings represent interval improvement since previous study

**DR SOHAIL AHMED KHAN**

M.B.B.S, M.C.P.S, F.C.P.S

ASSISTANT PROFESSOR

CONSULTANT RADIOLOGIST

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**Conclusion:**

According to the latest CT scan done after 12 Sessions of oncothermia (monotherapy) significant reduction in size at both sites (breast and stomach antrium noticed).

According to the patient her health status has been improved significantly. No history of vomiting or associated symptoms of CA stomach noticed breast, lung on examination was unnoticeable. Over all her health status is getting significantly better.